

1947

1947 Barnwell County Extension Service Report Form

Clemson University Cooperative Extension Service

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ANNUAL REPORT

OF

DIRECTOR

COOPERATIVE EXTENSION WORK

SOUTH CAROLINA

1943

CLEMSON AGRICULTURAL COLLEGE

Cooperating with

UNITED STATES DEPARTMENT OF AGRICULTURE

EXTENSION SERVICE

D. W. Watkins, Director

Clemson, South Carolina

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Extension Service

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Clemson, South Carolina

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FOREWORD

The program of the Clemson College Extension Service in 1943 was devoted entirely to the business of assisting South Carolina farmers to produce, conserve and market the maximum amount of food, feed and fiber for the war effort. 1943 was a hard year for the farmers of the state. Many difficulties stood in the way and threatened to prevent them from reaching full production. Shortages of labor, farm machinery and equipment, fertilizers, insecticides, gasoline and tires for farm transportation, and others, were serious obstacles that had to be overcome, else production would have declined.

However, with one year's experience in wartime production behind them, the farmers of the state dug in a little deeper and came through with new high records in the production of a number of products vitally needed by the nation at war. Old equipment was patched up and put back to work. Substitutes for scarce materials and equipment were improvised and used. Tractor-drawn plowing, planting, and harvesting machinery and other farm machinery and equipment was used on a work-swapping and custom basis in neighborhoods and communities throughout the state. Farmers worked longer hours, and many who had retired went back to work. Farm women and children did more field work than is normal in peace-time. Production was pushed to the limit.

The following table based upon data from the Bureau of Agricultural Economics. Crop Reporting Section, shows the results obtained by the farmers of South Carolina in terms of the volume of production of the main agricultural products grown in the state:

Table Showing 1943 Production of Principle South
Carolina Crops and Livestock

Product	1943 Production
Cotton, bales	695,000
Tobacco, lbs.	87,400,000
Corn, bus. ✓	24,720,000
Oats, bus.	14,102,000*
Wheat, bus.	3,002,000
Barley for grain, bus.	13,000*
Peanuts for oil, lbs.	46,800,000*
Soybeans for beans, bus.	104,000*
Tame Hay, tons	471,000
Lespedeza Hay, tons	112,000*
Sorghum Syrup, gals.	583,000
Sugar Cane Syrup, gals.	648,000 1231000
Sweet Potatoes, bus.	6,690,000*
Irish Potatoes, bus.	2,187,500
All Cattle on farms, head	392,000*
Milk Cows on farms, head	186,000*
Milk Production, lbs.	589,000,000*
Heifer Calves on farms, head	44,000*
Hogs on farms, No.	800,000*
Chickens on farms, No.	5,756,000*
Eggs Produced, doz	326,000,000*
Turkeys Raised, No.	178,000*

*Highest figures on record for the state.

ADMINISTRATION

Headquarters and Personnel

Headquarters: The administrative headquarters of the South Carolina Co-operative Extension work is located at the Clemson Agricultural College, Clemson, S. C., which is the land grant college of the state. By agreement between the colleges concerned, the home demonstration branch of the service has headquarters at Winthrop College, Rock Hill, S. C., the state college for women; and Negro extension work has headquarters at the State Negro College, Orangeburg, S. C.

Supervisory Districts: For the purpose of field supervision of white county agents and home demonstration agents, the counties of the state are divided in three districts. Each district is in charge of a district agent who supervises the work of the county agents, and a district home demonstration agent who supervises the work of the county home demonstration agents. These district agents maintain headquarters in central locations in their respective districts.

Negro agricultural agents, in the 19 counties where they are located, are supervised by a Negro District Agent with headquarters at the State Negro College, at Orangeburg, and Negro home demonstration agents in the 16 counties where they are located are supervised by a Negro supervisor of home demonstration work, also located at Orangeburg.

Extension Specialists: With the exception of the marketing, livestock, and tobacco specialists, the Assistant Boys' Club Agent, Assistant Extension Forester, and Extension AAA Agent, all maintain headquarters at Clemson College, and all home demonstration specialists maintain headquarters at Winthrop College.

Personnel: Following is given a list of the members of the staff of the Clemson College Extension service as of December 1, 1943.

AGRICULTURAL EXTENSION STAFF

D. W. Watkins, Director
T. W. Morgan, Assistant Director
C. M. Hall, Chief Clerk and Accountant

SPECIALISTS

AGRICULTURAL ECONOMICS

O. M. Clark, Extension Economist & Farm Management Specialist, Clemson, S. C.
P. S. Williamon, Supervisor, Unit Test Demonstration Farms, Clemson, S. C.
M. C. Rochester, Farm Management Specialist, Clemson, S. C.

AGRICULTURAL ENGINEERING

C. V. Phagan, Extension Agricultural Engineer, Clemson, S. C.
W. J. Ridout, Jr. Rural Electrification Specialist, Clemson, S. C.
K. R. Ray, Assistant Agricultural Engineer, Clemson, S. C.

AGRONOMY

H. A. Woodle, Extension Agronomist in Charge, Clemson, S. C.
H. A. McGee, Tobacco Specialist, Florence, S. C.
C. G. Peebles, Assistant Extension Agronomist, Clemson, S. C.
H. G. Boylston, Assistant Extension Agronomist, Clemson, S. C.

BOYS' 4-H CLUB WORK

I. D. Lewis, State Boys' Club Agent, Clemson, S. C.
O. R. Smith, Assistant State Boys' Club Agent, Aiken, S. C.

DAIRYING

C. G. Cushman, Specialist in Charge Dairy Work, Clemson, S. C.

ENTOMOLOGY

W. C. Nettles, Extension Entomologist and Plant Pathologist, Clemson, S. C.
E. S. Prevost, Extension Beekeeping Specialist, Clemson, S. C.

EXTENSION - AAA AGENT

J. M. Napier, Darlington, S. C.

EXTENSION SOIL CONSERVATIONIST

E. C. Turner, Clemson, S. C.

FORESTRY

W. J. Barker, Extension Forester, Clemson, S. C.
C. W. Hall, Asst. Extension Forester, 506 Calhoun Office Bldg. Columbia, S. C.

HORTICULTURE

A. E. Schilletter, Extension Horticulturist, Clemson, S. C.

LIVESTOCK

J. R. Hawkins, In Charge Livestock Extension, Box 1463, Columbia, S. C.
A. L. DuRant, Livestock Specialist, Florence, S. C.

MARKETING

T. A. Cole, Chief of Division, Box 1463, Columbia, S. C.
J. E. Youngblood, Agent in Marketing, Box 1463, Columbia, S. C.
B. S. Rich, Asst. Marketing Specialist, Box 1463, Columbia, S. C.
W. A. Tuten, Marketing Specialist, Box 1463, Columbia, S. C.

POULTRY

P. H. Gooding, Extension Poultryman, Clemson, S. C.
E. A. Peterkin, Assistant Extension Poultryman, Dillon, S. C.

PRINTING AND DISTRIBUTION OF PUBLICATIONS

A. B. Bryan, Agricultural Editor, Clemson, S. C.
J. M. Eleazer, Information Specialist, Box 1463, Columbia, S. C.
Winnie Belle Holden, Radio Specialist, Box 1463, Columbia, S. C.

VISUAL INSTRUCTION

S. V. Lewis, Assistant in Visual Instruction, Clemson, S. C.

DISTRICT AGENTS

First District	L. B. Massey, Box 266	Spartanburg
Second District	J. T. Lazar	Florence
Third District	A. H. Ward	Aiken

COUNTY AGENT

<u>County</u>	<u>Name</u>	<u>Post Office</u>
Abbeville	Z. D. Robertson	Abbeville
Aiken	R. R. Mellette	Aiken
Allendale	C. B. Searson, Jr.	Allendale
Anderson	E. P. Josey	Anderson
Bamberg	W. H. Craven	Bamberg
Barnwell	C. P. Guess, Jr.	Barnwell
Beaufort	R. H. Sams	Beaufort
Berkeley	J. H. Harvey	Moncks Corner
Calhoun	Crayton McCown	St. Matthews
Charleston	C. W. Carraway	Charleston
Cherokee	S. C. Stribling	Gaffney
Chester	M. C. Crain	Chester
Chesterfield	J. L. King	Chesterfield
Clarendon	F. M. Rast	Manning
Colleton	L. W. Alford	Walterboro
Darlington	O. O. Dukes	Darlington
Dillon	S. W. Epps	Dillon
Dorchester	E. H. Jordan	St. George
Edgefield	J. F. Jones	Edgefield

Fairfield
 Florence
 Georgetown
 Greenville
 Greenwood
 Hampton
 Horry
 Jasper
 Kershaw
 Lancaster
 Laurens
 Lee
 Lexington
 McCormick
 Marion
 Marlboro
 Newberry
 Oconee
 Orangeburg
 Pickens
 Richland
 Saluda
 Spartanburg
 Sumter
 Sumter
 Union
 Williamsburg
 York

R. H. Lemmon
 J. W. McLendon
 M. M. McCord
 W. R. Gray
 R. D. Steer
 J. C. Anthony
 V. M. Johnston
 N. R. Davis, Jr.
 W. C. McCarley
 T. B. Lee
 C. B. Cannon
 W. L. Bryant
 S. E. Evans
 G. W. Bonnette
 J. M. Lewis
 Colin McLaurin
 P. B. Ezell
 G. H. Griffen
 R. D. Suber
 T. A. Bowen
 D. R. Hopkins
 F. M. Kearse
 W. H. Stallworth
 J. M. Eleazer*
 D. M. Altman
 R. W. Bailey
 R. A. Jackson
 L. W. Johnson

Wimmsboro
 Florence
 Georgetown
 Greenville
 Greenwood
 Hampton
 Conway
 Ridgeland
 Camden
 Lancaster
 Laurens
 Bishopville
 Lexington
 McCormick
 Marion
 Bennettsville
 Newberry
 Walhalla
 Orangeburg
 Pickens
 Columbia
 Saluda
 Spartanburg
 Sumter
 Sumter
 Union
 Kingstree
 Rock Hill

*Part time

ASSISTANT COUNTY AGENTS

<u>County</u>	<u>Name</u>	<u>Post Office</u>
Anderson	J. H. Hopkins	Anderson
Barnwell	H. A. Bowers	Barnwell
Berkley	M. C. Mason	Moncks Corner
Cherokee	Boyce Miller, Jr.	Gaffney
Chester	W. E. Pugh	Chester
Clarendon	O. W. Cain	Manning
Darlington	L. B. Harrington	Darlington
Florence	R. C. Hubbard, Jr.	Florence
Greenville	G. R. Hamilton	Greenville
Greenwood	J. T. Graves	Greenwood
Laurens	Fred W. Taylor	Laurens
Newberry	J. E. Fagan	Newberry

Pickens	H. D. Marett	Pickens
Richland	L. D. Blake, Jr.	Columbia
Richland	J. D. Watson	Columbia
Spartanburg	C. H. Lomas	Spartanburg
Sumter	R. P. Alston	Sumter
York	P. M. Garvin	Rock Hill
Asst. to District Agent Ruthel Ferguson (Box 266)		Spartanburg

NEGRO AGRICULTURAL AGENTS

H. E. Daniels, District Agent, State College, Orangeburg

<u>County</u>	<u>Name</u>	<u>Post Office</u>
Aiken	George T. Dowdy	Aiken
Anderson	J. A. Gresham	Anderson
Beaufort	Benjamin Barnwell	Beaufort
Chester	Waymon Johnson	Chester
Clarendon	William Thompson	Manning
Darlington	S. C. Disher	Darlington
Fairfield	David G. Belton, Jr.	Winnsboro
Florence	H. S. Person	Florence
Greenville	R. W. Anderson	Greenville
Greenwood	L. V. Walker	Greenwood
Kershaw	J. D. Marshall	Camden
Marion	G. W. Dean	Marion
Orangeburg	G. W. Daniels, 135 Treadwell St.	Orangeburg
Richland	J. E. Dickson	Columbia
Spartanburg	W. C. Bunch	Spartanburg
Sumter	Arthur Sanders	Sumter
Union	E. N. Williams	Union
Williamsburg	Van Buren Thomas	Kingstree
York	Booker T. Miller	Rock Hill

HOME DEMONSTRATION STAFF

Lonny I. Landrum, State Home Demonstration Agent, Winthrop College, Rock Hill, S. C.
 Juanita Neely, Assistant Home Demonstration Agent, Winthrop College, Rock Hill, S. C.
 Bessie Harper, District Agent, Aiken, S. C.
 Mrs. T. D. Plowden, District Agent, Route 3, Sumter, S. C.
 Ann Elizabeth Monroe, District Agent, Winthrop College, Rock Hill, S. C.
 Mrs. Dora Dee Walker, Prod. & Consv. Specialist, Appleton, S. C.
 Mrs. Harriet F. Johnson, State Girls' Club Agent, Winthrop College, Rock Hill, S. C.
 Jane Ketchen, Marketing Specialist, Winthrop College, Rock Hill, S. C.
 Eloise Johnson, Clothing Specialist, Winthrop College, Rock Hill, S. C.
 Martha W. Buttrill, Extension Nutritionist, Winthrop College, Rock Hill, S. C.
 Eleanor Carson, Poultry Specialist, Winthrop College, Rock Hill, S. C.
 Portia Seabrook, Home Management Specialist, Winthrop College, Rock Hill, S. C.

COUNTY HOME DEMONSTRATION AGENTS
SOUTH CAROLINA

County	Name	Post Office
Abbeville	Dorothy Wall	Abbeville
Aiken	Susie Flowers	Aiken
Aiken	Louise Alsbrook (Asst. Agent)	Aiken
Allendale	Manie Sue Hicks	Allendale
Anderson	Ella Burton	Anderson
Anderson	Obers Byars (Asst. Agent)	Anderson
Bamberg	Marie Lambert	Bamberg
Barnwell	Elizabeth McNab	Barnwell
Beaufort	Mary Ellen Eaves	Beaufort
Berkley	Mrs. Eliz. D. Boykin	Moncks Corner
Calhoun	Lula Chriesman	St. Matthews
Charleston	Caroline S. Alston (Box 395)	Charleston
Cherokee	Virginia Mauldin	Gaffney
Chester	Myrtle Nesbitt	Chester
Chesterfield	Sarah S. Pritchett	Chesterfield
Clarendon	Carrie Carson	Manning
Colleton	Caroline Woodruff	Walterboro
Darlington	Mrs. Emmie J. Evans	Darlington
Dillon	Etta Sue Sellers	Dillon
Dorchester	Ophelia Barker	St. George
Edgefield	Laura Mellette	Edgefield
Fairfield	Marion Mabry	Winnsboro
Florence	Amelia Muldrow	Florence
Florence	Elizabeth Trowell (Asst. Agent)	Florence
Georgetown	Vela Smith	Georgetown
Greenville	Julia W. Stebbins (P.O. Drawer 267)	Greenville
Greenville	Mary Frances White (Asst. Agent Box 267)	Greenville
Greenwood	Elizabeth Herbert (Chamber of Commerce)	Greenwood
Hampton	Izora Miley	Hampton
Horry	Margaret Cloud	Conway
Jasper	Ann. J. Burgess	Ridgeland
Kershaw	Margaret Fewell	Camden
Lancaster	Ruby Mae Craven	Lancaster
Lancaster	Miriam Fridy (Asst. Agent)	Lancaster
Laurens	Louise Fleming	Laurens
Lee	Mary Ida Warner	Bishopville
Lexington	Elizabeth Leonard	Lexington
McCormick	Matilda Bell	McCormick
Marion	Sallie McKimmon	Marion
Marlboro	Beatrice Mabry	Bennettsville
Newberry	Ethel Counts	Newberry
Oconee	Mary C. Haynie	Walhalla
Orangeburg	Anne Williamson (Asst. Agent)	Orangeburg
Orangeburg	Mattie Lee Cooley	Orangeburg
Pickens	Sarah G. Cureton	Pickens
Richland	Laura Connor (Co. C.H. Bldg.)	Columbia
Saluda	Pearl Calvert	Saluda

Spartanburg	Kate M. Hooper (P. O. Bldg.)	Spartanburg
Spartanburg	Susan Hall (Asst. Agent)	Spartanburg
Sumter	Sallie Pearce (Board of Trade)	Sumter
Sumter	Carolyn T. McCutcheon (Asst. Agent)	Sumter
Union	Mahala J. Smith	Union
Williamsburg	Dora Oosterbaan	Kingstree
York	Ellen Atkinson	Rock Hill
York	Lenora M. Berry (Asst. Agent)	York

SOUTH CAROLINA NEGRO HOME DEMONSTRATION WORKERS

Marian B. Paul, State Supervisor Negro Demonstration Work, State College,
Orangeburg

<u>County</u>	<u>Name</u>	<u>Post Office</u>
Aiken	Mabel Lee Johnson	Aiken
Allendale	Annie Mae J. Butler	Allendale
Beaufort	Willie Mabel Price c/o Penn Normal School	Frogmore
Berkeley	Cecelia McIver	Moncks Corner
Charleston	Albertha DeVaux, 58 Nassau St.	Charleston
Fairfield	Mayme S. Brandyburg	Wimmsboro
Florence	Lillian Brown, 402 E. Palmetto St.	Florence
Georgetown	Rosa G. Gadsen, 911 Highmarket St.	Georgetown
Greenville	Delphenia Wilkerson, Phyllis Wheatly Center	Greenville
Kershaw	Susie Bivens Boykin	Camden
Marlboro	Minnie Gandy	Clio
Newberry	Laura Manney Whitney, Box 58	Newberry
Orangeburg	Rosa Reed Odom, State College	Orangeburg
Richland	Frances Thomas, Route 4, Box 44	Columbia
Spartanburg	Marie Blakemon	Spartanburg
Sumter	Janie Rucker Howard, Box 849	Sumter

Extension Workers on Military Leave

As of December 1, 1943, fifty-four extension workers had been released from the Extension Service to enter the armed services of the United States. Forty-seven of these workers were granted leaves of absence. The job of maintaining an adequate force of trained extension workers under these circumstances represented one of the major administrative problems during the year. A list of extension workers on military leave of absence is given as follows:

Extension Workers on Military Leave, 1943

W. L. Abernathy, Assistant Extension Economist
E. C. Abrams, County Agent
L. M. Asbill, Assistant Marketing Specialist
E. B. Baskin, County Agent
M. A. Bouknight, County Agent
T. O. Bowen, Assistant County Agent
F. W. Cannon, County Agent
D. H. Caughman, Assistant County Agent
L. O. Clayton, Assistant State 4-H Club Leader
T. M. Clyburn, Assistant County Agent
J. L. Cochran, Assistant County Agent
R. A. Cole, Assistant County Agent
F. W. Corley, County Agent
R. H. Crouch, Assistant to District Agent
F. M. Fleming, Assistant to District Agent
B. J. Funderburk, Assistant County Agent
C. P. Guess, Jr., County Agent
F. K. Hinnant, Assistant in Visual Instruction
Winston Holiday, Office Assistant
J. M. Jeter, Assistant County Agent
E. M. Johnson, Assistant Agricultural Engineer
D. K. Josey, Assistant County Agent
J. C. King, County Agent
R. H. Lemmon, Jr., Assistant County Agent
H. P. Lynn, Assistant in Visual Instruction
W. J. Martin, County Agent
J. W. Matthews, Assistant Extension Poultryman
W. R. McKinney, Assistant County Agent
M. C. McKinzie, Assistant Agricultural Engineer
J. C. McComb, County Agent
G. C. Meares, Assistant to the Director
J. D. Miller, Assistant County Agent
Ruby Pearson, Assistant Home Demonstration Agent (WAAC)
W. H. Pressley, County Agent
B. E. G. Prichard, Assistant Extension Agronomist
D. Richardson, Assistant County Agent
L. W. Riley, Assistant in Visual Instruction
J. T. Rogers, County Agent
D. A. Shelley, County Agent
J. C. Shelley, Assistant County Agent
T. A. Stallworth, Assistant County Agent
G. H. Stewart, Rural Electrification Specialist
D. C. Sturgis, Assistant Extension Economist

M. H. Sutherland, Assistant Extension Economist
J. W. Talbert, County Agent
E. C. Turner, Extension Conservationist
S. B. Walker, County Agent
H. G. Way, Assistant County Agent
S. A. Williams, Assistant County Agent
J. C. Willis, County Agent
J. R. Wood, Assistant County Agent
H. A. Woodle, Extension Agronomist
Roscoe Bacote, Negro Agricultural Agent

THE EXTENSION PROGRAM OF WORK FOR 1943

The extension program of work for 1943 was developed with the primary objective of continuing to assist South Carolina farmers to efficiently produce, conserve, and market food, feed, fiber, and other products needed at home and abroad by the nation at war.

Planning the 1943 Extension Program

In the planning and development of county programs of extension work, county agents and home demonstration agents had the cooperation and assistance of 48 county agricultural committees, - one in each county - composed of 1,750 representative farmers and farm women representing all communities in each county. These committees were called together from time to time to review the work in progress, and help plan needed work to meet wartime changes, and gave unselfishly of their time and effort to the development and conduct of sound county programs of agriculture to meet the needs of farm people.

County extension programs of work for 1943 were developed in the fall of 1942 on the basis of (1) suggestions developed by the county agricultural committee and the agents in each county as to the problems that should be approached in 1943 (2) suggestions from extension specialists as to the types of demonstrations and other educational activity that should be carried out to meet the needs of the county, (3) final determination by the agents and supervisors as to what could be done in 1943, what methods should be used, and when they would be carried out.

All extension workers were brought together in group conferences in January, 1943, to develop and outline the year of wartime work ahead, and to coordinate the work on a district and statewide basis. Problems of farm people and methods of conducting wartime extension work were discussed, and definite plans made. Then, in August all extension workers were assembled again in conference to check on progress made, and to develop plans for fall work. Constant contact through supervisors and specialists was maintained between the office of the director and county workers, and the program was adjusted from time to time to meet changing wartime conditions.

Carrying out the 1943 Extension Program

Voluntary Farm and Home Leaders

In carrying out the 1943 extension program, the Extension Service had the cooperation of 8,298 representative farmers and farm women - an average of 180 in each county - who served as voluntary farm and home leaders, and who cooperated in many ways in carrying important wartime farm and home information "to the last farmer down the last road." County extension workers, supervisors and specialists trained 8,080 of these leaders to give demonstrations of recommended farm and home practices, and to do other wartime jobs. Contact with these leaders was maintained throughout the year through 1,175 meetings with voluntary leaders, 16,196 personal visits to leaders farms and homes with regard to the program, 12,508 personal letters to leaders, and 881 circular letters to leaders.

Voluntary farm and home leaders assisted in all phases of extension work, but especially in those phases having to do with the wartime program for agriculture. Following are listed some of the specific jobs with which they assisted: (1) Enrollment of 43,228 farm families in the Better Farm Living 75 Percent Food and Feed Production Program; (2) Sale of war bonds and stamps to the value of \$5,197,949.00 to 33,822 farm families; (3) Collection of 6,822 tons of scrap metals and 245,895 pounds of scrap rubber; (4) The early destruction of 208,000 acres of cotton stalks to help control the boll weevil; (5) the placing of 140,982 tons of ground limestone on 11,423 farms; and (6) other jobs such as victory gardens, nutrition, collection of kitchen fats, marketing, etc.

Extension Activities and Results

Extension workers used every means at their disposal to contact farm families and give them the necessary information, assistance and encouragement to enable them to increase the volume and efficiency of their war production. County Extension workers made a total of 82,910 farm and home visits to 50,422 different farms and homes; prepared and published 10,261 newspaper articles giving timely information; distributed 334,031 bulletins, made 632 radio talks, and held 24,579 demonstration meetings which were attended by 341,805 farm people; showed educational motion pictures, filmstrips and slides at 116 meetings attended by 11,575 farm people; and gave 10,788 method demonstrations before 171,757 farm people. A total of 215,775 farm people called at county extension offices, and 122,778 others made telephone calls for information.

THE BETTER FARM LIVING AND FOOD FOR VICTORY PROGRAM

The main emphasis of the 1943 extension program was directed toward Better Farm Living and Food for Victory, which included the production and conservation of the food and feed necessary for the proper nutrition of the people on the farms of the state; the production and marketing of high quality crops, livestock, and livestock products to meet the needs of the Nation at war and to provide the necessary income for an adequate standard of farm living; the improvement of land tenure relationships, and other extension activities which contribute to the improvement of farm and community life.

The Better Farm Living Program was started by the Extension Service in 1938, and included the development of definite extension activities, neighborhood, community and county organization, and the selection of representative farmers and farm women as voluntary farm and home leaders to further the above listed objectives. Early in 1940 the program was carried to the farm people throughout the state, and since that time it has been in process of continuous development.

The Better Farm Living Program was, thus, organized and going at the time of Pearl Harbor, and consequently, the Extension Service was girded to help the farm people of the state meet the wartime problems that confronted them. Soon after the entry of the United States into the war, the name "Better Farm Living Program" was changed to "Better Farm Living and Food for Victory Program," and the objectives of the program were adjusted and intensified to meet the wartime conditions.

From the beginning the Better Farm Living Program, and then the Better Farm Living and Food for Victory Program, has been based upon the enlistment and training of voluntary county, community, and neighborhood farm and home leadership as the most effective way of reaching all farm people, and especially those who do not attend farmers meetings, read circular letters, newspapers or bulletins.

Food and Feed Production: Early in the war it became evident that one of the greatest contributions that South Carolina farm people could make to the war effort was the production and conservation of the food and feed needed at home to give an adequate diet, and the marketing of any surplus to help feed the armies, the civilian population of our country and our allies. Consequently, the Extension Service devoted every effort to helping farm people accomplish this purpose. All educational methods at hand were used by extension workers and voluntary leaders were used to acquaint farm people with the needs and to assist them to produce, conserve and market to meet the needs.

The response of the farmers to the wartime needs of the Nation is shown by the fact that in spite of almost overwhelming difficulties, they maintained their levels of production in practically all commodities, and made new high records in producing oats, barley, peanuts, soybeans, sweet potatoes, cattle, dairy cows, milk, hogs, chickens, eggs, turkeys, and victory gardens.

Victory Gardens received wide publicity, Information on selection and preparation of soils, fertilization, what, where and how to plant, cultivation, harvesting use, conservation was made available to all farm families directly from the extension workers and through voluntary leaders. It is estimated that

extension workers and voluntary leaders contacted 100,000 farmers in the state with reference to the need for gardens and garden problems. A total of 250,000 garden bulletins and other garden material was distributed. The result was a new high record of 152,760 home gardens on farms and in cities and town in the state.

Seventy-five Percent Food and Feed Production Program: This program, aimed at giving assistance to farm families in producing more of their food and feed at home, and recognizing those farm families who produced and conserved 75 percent or more of the food and feed needed on their farms.

A total of 43,228 farm families were enrolled in the 1943 program and certificates for 1943 bearing seals for each year's accomplishment of this goal since 1940, were awarded to 8,840 farm families whose results, judged by the county agricultural committee on the basis of a standard score card, showed that they had produced and conserved a minimum of 75 percent of the food and feed needed on their farms.

Since this program was started in 1940, similar recognition has been given to 21,426 farm families in the state.

One Hundred Percent Community Demonstrations: The results secured from a few well organized rural communities in 1941 in which 100 percent of all owner and renter families planned to participate or cooperate in reaching certain individual farm or community goals, proved to be of much significance in the Better Farm Living Program of that year. This type of demonstration was continued the following year and in several of the 41 counties conducting the demonstrations outstanding results were obtained.

This type of demonstration embodies in a workable way: (1) Definite planning on the part of farm people, county agents, and specialists; (2) development and training of local leadership; (3) cooperation and coordination of activities between various agricultural agencies and farm people; and (4) lends itself to individual farm and community-wide activities for the advancement of Better Farm Living among large groups of neighbors of more or less common interests.

The 100 Percent Community type of demonstration was continued in 1943. Twenty-nine counties completed their demonstrations and reported their results; six counties failed to carry out all phases of the demonstration and their reports were incomplete; and eleven counties failed to establish the demonstrations.

Statistical Report - 100% Communities

Number of communities covered by complete reports-----	30
Number of communities covered by incomplete reports-----	6
Number of farm families in above communities-----	1949
Number of active leaders reported-----	416

Leadership Training

Number of white men trained in one or more activities-----	817
Number of white women trained in one or more activities-----	717
Number of Negro men trained in one or more activities-----	129
Number of Negro women trained in one or more activities-----	45
Total-----	1708

Leaders received training in an average of four activities

100% Goals

Number farm or community goals established in which 100% participation was sought of all families	164
Number farms planning to participate	6498
Number farms participating	4626
Number farms reaching their goal or goals	3649

Demonstrations-Meetings, or Tours

Number method demonstrations given	633
Number result demonstrations completed	794
Number meetings	417
Attendance at meetings	6463
Number farm tours	9
Number making tours	177

Time Devoted By County and Home Agents

Number days devoted to this work by local extension agents	676
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For each day spent by county and home agents in assisting with the 100% community activities they approximated the equivalent of:

Training 2.5 leaders
conducted 1 method demonstration
conducted 1 result demonstration
conducted 1 meeting

Among the community wide activities were the establishment of Home Demonstration and 4-H Clubs where none had previously existed, establishment of markets, new sources of income, soil conservation agreements, pure bred Jerseys, one variety cotton, use of purebred sires, enrollment in 75% program and the marketing of milk.

Coordinated Production and Marketing in Organized Communities: The best marketing procedure begins with the proper production of the commodity. In other words, production and marketing are inseparable and must be coordinated if best results are to be obtained. When marketing is approached from this standpoint it involves all of those items entering into production such as soil fertilizer varieties, disease and insect control, cultural methods, and harvesting as well as proper methods of grading, packing, and loading.

Demonstrations of this type were organized and reported from 22 counties, with 1144 farms participating in the production and sales of miscellaneous products amounting to \$110,994.32. A breakdown of the above shows the following:

Products	No. Communities	No. Farms	Volume	Amount Received
Eggs	12	379	4,481 cases	\$51,215.15
Poultry	4	519	32,795 pounds	\$13,485.00
Sweet Potatoes	8	136	16,150 bushels	\$30,725.00
Milk	2	22	329,076 pounds	\$88,908.58
Cotton Seed				
One Variety	1	19	1,990 bushels	\$ 2,235.00
Small Grain	2	17	2,149 bushels	\$ 3,289.50
Fall Tomatoes	1	52	200 bushels	\$ 1,124.75
		<u>1144</u>		<u>\$110,994.32</u>

EXTENSION AAA WORK

J. M. Napier, Extension AAA agent

As in previous years it was felt that the Extension-AAA Agent could render his best service by devoting most of his time working with the representatives of established agencies who are in contact with farm people.

During the year the Extension-AAA Agent made personal contacts with 612 individuals in an effort to bring about a better understanding and a wider participation in soil-building practices and use of conservation materials; a greater production of food and feed by farm families; an enlarged and more comprehensive program of marketing of farm products, and a further development of rural leadership period. He discussed the work before 82 group meetings or conferences with a total attendance of 1859 persons. Of this number 1029 were extension workers and 830 were representatives of various groups interested in Agriculture. In reference to individual conferences reported above, contacts were made 121 times with County Agents, 68 times with Home Agents, and 64 times with County AAA Administrative Officers.

The personnel of the group conferences referred to above were composed primarily of Extension Agents, AAA Committeemen and Administrative Officers, volunteer farm leaders, and to a lesser extent, representatives of the FSA, SCS, and Smith Hughs teachers.

Throughout the period in which there has been a National Farm Program many Agricultural workers and farmers have continued to voice the desire that its regulations and requirements be stated in more simple terms. It is felt that if the most pertinent points of the program could be expressed in a more simple phraseology that all concerned would have a better understanding of the AAA and this would result in more general participation and greater benefits to those for whom the program was designed to aid.

In an attempt to meet this need for simple informational material expressed in "farmers' language" the writer prepared Extension Circular No. 244, "Triple A Tools For Better Farm Living and Victory." This was a 35 page "question and answer" circular dealing with the most pertinent points of the AAA as it applied to South Carolina. The Extension Service printed and distributed 8000 copies of the circular. The distribution was made primarily to those groups working with farm people, and included Vocational Agricultural teachers, field men of the Soil Conservation Service, the Farm Security Administration, the Farm Credit Administration, AAA Committeemen and County Administrative Officers, and Extension Agents. Letters and oral expressions which have come to the attention of the Extension-AAA Agent indicate that it was received with some measure of appreciation by some of those who received it.

Fifteen circular letters or statements dealing with certain pertinent phases of the AAA and soil-building practices applicable to this state were prepared and

forwarded to the Extension Workers - and or County Administration Officers for their use, either as information, news articles, or as circular letters. The statements were designed for "timely" use. Those dealing with practices contained simple suggestions as to how the practices might be carried out in accordance with good farming practices and yet enable the producer to qualify for payment under the AAA. The respective Extension Specialists "OK'd" the subject matter letters before they were released. In addition, 8 other statements were furnished and used for general extension publicity. These dealt primarily with food and feed surveys, use of soil-building practices, and conservation materials and services. Seven radio "shorts" were prepared for and used. These statements dealt with certain AAA practices.

Greater Participation In Soil Building Practices

In the production of food and feed crops the importance of soil improvement and conservation is fully realized. With this in view the volunteer worker in the Better Farm Living Program have been requested to point out to farmers the importance of taking full advantage of the soil building assistance and conservation materials offered to them through the AAA.

An increasing number of farms are taking advantage of this phase of the program. This is shown by the following statement.

Soil Building Practices and Payments

<u>Year</u>	<u>No. of farms reporting Soil Bldg. Practices</u>	<u>Value of payments</u>
1940*	197,262	\$2,219,745.00
1941*	208,446	2,457,036.00
1942*	211,857	2,518,462.30
1943**	100,921 (Worksheets)	2,658,511.00

* Indicates No. practices carried out.

** Indicates actual No. farms carrying out one or more practices.

Greater Use of Conservation Materials and Service

That more and more farms are becoming interested in the use of Conservation materials is shown by the following:

AAA CONSERVATION MATERIALS 1939-1943

	<u>1939</u>	<u>1940</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1939-1943</u>
No. Farms obtaining lime	6,388	10,789	10,146	9,944	10,200	47,467
No. Tons lime	58,166	91,949	90,854	97,351	103,288	441,608
No. Farms obtaining superphosphate	2	13	2,556	1,803	2,155	6,529
No. Tons superphosphate	26	184	4,994	4,807	4,223	14,234
No. Farms obtaining winter legume seed		4,004	4,708	3,521	4,187	16,510
No. Tons winter legume seed		458	484	436	566	1,942

Total value of conservation materials used by South Carolina farmers 1939-1943 (based on rate of deduction)

1939	-----	\$148,312.00
1940	-----	300,573.00
1941	-----	371,578.00
1942	-----	416,526.00
1943	-----	495,049.00
Total	-----	\$1,732,039.00

AGRICULTURAL ECONOMICS and FARM MANAGEMENT

O. M. Clark, Extension Economist in Charge
M. C. Rochester, Farm Management Specialist
P. S. Williamon, Supervisor Unit Test Demonstration Farms

Outlook and Economic Information

During October 1943, O. M. Clark and M. C. Rochester attended the National conference for discussing the outlook relative to agriculture for 1944, which was held in Washington, D. C. Members of this division took part in 29 county wide outlook meetings which were attended by approximately 5,200 farmers. There were somewhere in the neighborhood of 400 community outlook meetings held during 1943. Due to the reduced personnel and the pressure of other work, members of this division were not able to devote much time to assisting with community meeting, although certain members participated in several outlook meetings held during the year. O. M. Clark discussed the outlook with respect to those things of interest to agricultural people at a State-wide conference of Negro farm and Home agents, a State-wide meeting of Negro ministers and at a meeting of the State Agricultural Committee.

An annual outlook report was prepared; also, a small circular designed to show the application of outlook information to farm and home planning was prepared in cooperation with the home management specialist of the Extension Service. Several mimeographed statements and articles were prepared during the year dealing with the economic situation and outlook relative to agriculture. The various printed and mimeographed statements, news articles, etc., issued during the year dealing with the economic situation were designed to inform farm people of the effects of the war upon agriculture. The idea that we are living and working under an unusual situation was kept before farm people in order to try to get them to understand just why it was highly desirable to produce certain commodities and use our production facilities in the most effective manner possible. Wherever conditions seem to warrant it, farmers were encouraged to make whatever war emergency changes as were made in the direction of desirable long-time adjustments. Many of the things which farmers have been encouraged to do as war measures will be desirable during peace times.

Agricultural Production Goals

Members of this division did a great deal of work relative to the establishment of State and county production goals. Much time was spent collecting, tabulating and analyzing data which were used in the establishment of State and county goals. O. M. Clark was a member of the State committee, working on the establishment of these goals. He attended the 11 regular meetings of this committee held during the year. In addition, several meetings of members of the committee located at Clemson were held for discussing materials and procedures to be used in determining goals. After the county goals of the various crop and livestock enterprises were agreed upon by the State committee and discussed with a larger group, represented by farmers and various agencies working on agricultural problems in the State, the county goals were taken to the counties

and discussed with the county agricultural committee of the counties concerned. Members of this division, as well as some other members of the Extension Service, participated in these county meetings.

Emergency Farm Labor Program

Work relative to the Emergency Farm Labor Program is given in a separate report. In addition to the work given specifically under this program and reported in this separate report, members of this division have done a great deal to help the general farm labor situation in the State. M. C. Rochester prepared a circular designed to assist farmers in making the best use possible of the labor available to them. In this connection, he prepared sets of charts for the same purpose. Various members of this division have discussed before groups of various kinds how the members of these groups might assist in helping to meet the farm labor needs.

Farm Organization and Planning

A considerable number of farmers have been assisted with the planning of their farm businesses. One of the purposes for which complete farm records are kept is to enable the operators to improve their farm organizations. Some work has been done relative to farm planning with all farmers who have kept farm records and sent them in for analysis. Rather detailed plans are made for all farms on which TVA unit test demonstrations were carried on. The work of the TVA unit test program is given in another section of this report.

Better Farm Living

Members of this division have done work of various kinds pertaining to the Better Farm Living Program. They have assisted by preparing material, participating in meetings of extension workers and farmers on various phases of the Better Farm Living Program.

Agricultural Conservation Program

Members of this division have from time to time worked on various phases of the agricultural conservation program. They have participated in meetings at which the provisions of the AAA program were discussed and have made recommendations relative to the provisions of this program.

Inflation and the Sale of War Bonds and Stamps

The members of this division did considerable work during 1943 in connection with the informing of people generally and more particularly farm people about inflation, its dangers, and what they might do to help to prevent it. Members of this division discussed the subject at meetings of extension workers, farmers, and at meetings of various other groups. Statements dealing with this subject were prepared for the press and other distribution otherwise from time to time.

sharecroppers are laborers who receive payment for their labor in kind. Hence, the legal definition of a sharecropper excludes him from the tenant class as set up by the census. According to the census sharecroppers are classed as farm operators. In reality, the cropper unit is only a part of a larger farm unit working under supervision and without the right of independent management. In some cases there may be several croppers on the same farm and all of these together make a farm unit. On the other hand, the census classifies each of these farmers as a farm operator.

The instability of a higher proportion of the tenant farmers and croppers does not provide an opportunity for them to do many things necessary for their own welfare or the welfare of society. The high proportion of tenants changing farms each year is one of the worst features associated with South Carolina's land tenure. Poor health conditions, inadequate housing, lack of education, recreation, and other social institutions are the result largely of low farm incomes and economic conditions prevailing in the State. Present rental arrangements are such that they create certain problems which tend to deteriorate physical, human and economic resources as well as social institutions.

Realizing that many economic and social problems would remain unsolved even if all land were under the management of owner-operators, the Extension Service began a program during the thirties for establishing better relationship between landlord and tenant. At that time, several farms were visited and information was obtained regarding the relationships existing between landlord and tenant.

Follow-up work in this connection was resumed in the fall of 1943. In this connection, it was found that tenancy problems have been intensified during the last few years because of conditions resulting from the war. Many tenants had left the farm for employment in urban centers or gone into the armed forces. Because of relatively fewer tenants and laborers, many farmers are making adjustments in their farm organization to include livestock enterprises, particularly beef cattle, of a more extensive nature. On the other hand, arrangements are being worked out on some farms to include the production of hogs, chickens and dairy products on a share basis. With the critical shortage of farm labor, landlords feel that a program including some phase of livestock production on a share basis would tend to hold the croppers on the farm. At the same time, it is felt that such arrangements should prove mutually beneficial to both landlord and tenant from a financial standpoint. Also, the production resulting from such arrangements would be a direct contribution to the war effort.

This division provides information to farmers interested in setting up sharecropper arrangements for the production of livestock and livestock products as well as providing information regarding the arrangements for the usual crops. The information supplied is obtained largely from practical farmers who are experienced along certain lines of crop and livestock production. Information is obtained from farmers who have worked out arrangements for the production of certain crop or livestock enterprises which are not commonly produced on a share-crop basis. Such information is publicized through the regular channels and is made available for farmers desiring to work out similar arrangements on their farm.

Efficient Utilization of Labor and Machinery

Realizing that farm labor and machinery are limited factors which will greatly influence crop production in 1944, members of this department undertook to inform farmers of this situation and to impress upon them the importance of doing everything possible to use existing supplies more effectively. Certain materials were prepared for use in this connection. Included were an article, "Farming to Meet South Carolina's 1944 War Production Goals," and charts showing the man labor distribution for a typical farm in each of the three extension districts. In order to show the practical value of such information a chart was prepared showing the man labor distribution on the same farm after it was reorganized in light of war production goals and outlook information.

In the preparation of the material, both the long-time and short-time period was considered. The long-time period included material dealing with farm organization while the short-time deals principally with considerations for using present supplies of labor and machinery more effectively and included such things as custom use of machinery and swapping labor. After this material was discussed before county agents and specialists at district extension conferences, mimeographed copies were made available to county farm agents and labor assistants for use in connection with their farm labor program. In addition, certain members of this division discussed methods of obtaining greater efficiency in the utilization of labor and machinery before groups of farmers and on radio programs.

Miscellaneous Activities

Members of this division devoted some time to miscellaneous activities during the year. Some time was given to work on a marketing program for Darlington county. An appreciable amount of time was spent in working with war boards, both State and county boards.

Farm Account Records

The indications are that the number of complete farm account records kept during 1943 was greater than usual, but the number that was turned in for analysis was somewhat smaller than during the previous years. This was due mainly to the fact that the loss of personnel from this division to the armed forces has made it impossible to give the amount of assistance to farmers in record keeping that we have heretofore. Formerly, members of the Division of Agricultural Economics has assisted in making inventories of farm lands, buildings, livestock, feed and supplies, and machinery and tools for many of these records and during the year the record keepers were given assistance in keeping their records. Complete farm records are usually kept from the beginning of the calendar year to the end of that year. Therefore, since the Extension Service report year ends November 30, this report does not contain an analysis of the records that were kept during 1943. The records for 1942 were analyzed during the period covered by this report.

Closely related to the subject of inflation is that of the sale and purchase of war bonds and stamps. This division has done various things to help inform farm people as to the purpose and value of war bonds and stamps and in assisting county agents and home agents in organizing programs for reaching farm people with respect to information about these things. We have undertaken to get farm people to understand that the buying of war bonds was more than a means of financing the war. Members of this division discussed this subject at meetings of county agents and at various other meetings.

Federal Income Tax

With lowered Federal Income Tax exemptions and the addition of the Victory Tax more and more farmers are finding that they are subject to making income-tax declarations and the payment of such taxes under certain conditions.

Members of this division, through news articles, radio and the distribution of published material supplied by the Federal Extension Service, sought to inform farmers of this responsibility. More than 6,000 copies of the USDA publication "Farm Bookkeeping and the Federal Income Tax" were distributed to farmers through the county farm and home agents.

For the individual farmer this activity is closely connected with the keeping of farm account record books which have been advocated by this division for a number of years. Those farmers who have kept such records find them of much value in filling in the required forms. The usefulness of account keeping, moreover, extends far beyond any single purpose such as income-tax reporting. The analysis of the farm business required in order to decide which is the best of several alternatives as to taxable year, method of determining income, depreciation rates, etc., naturally leads to the use of the records for guidance on the question of farm management.

Landlord-Tenant Relationships

Farm tenancy has assumed major proportions in South Carolina during the past 75 years, even though land policies during the period of early settlement were rather liberal in favor to land ownership. Human, historical and economic factors have operated in the direction of a high proportion of tenant farmers. Cotton and tobacco production is adapted to the soils of the State and these crops are good tenant crops. However, during recent years more attention is being given to the production of other crop and livestock enterprises on a share basis.

Of the 137,558 farms in South Carolina reported by the 1940 census, 36.8 percent were operated by full owners, 6.7 percent by part owners, and 56.1 percent were operated by tenants, the remaining .4 percent were operated by managers. The tenant class of farmers, according to the census classification tenants, share tenants and croppers, and other tenants. Cash tenants comprise 11.6 percent of the total farm operator, share-cash tenants, .6 percent, share tenants and croppers, 35.6 percent and other tenants, 8.3 percent. The 56.1 percent of the total farm operators, which comprise the tenant class, may also be divided upon the basis of color, the whites representing 24.0 percent, and the non-whites representing 32.1 percent.

Legally, and in actual practice, the number of tenants in South Carolina is not as great as that reported by the census. According to South Carolina law,

The purpose of complete farm records is to provide information about the farm business which will serve as a basis for improving the organization and management of the farm. Heretofore, when the farm records have been returned to the farmers who kept them, the analyses of these records have been gone over with the farmers concerned and suggestions for improving the farm business have been made. Due to the reduced personnel of this division, not as much of this phase of the record work was done in 1943 as in previous years.

More than a usual amount of interest was shown in farm records in 1943 as a basis for preparing an income-tax report. This division gave a great deal of time to assisting farmers in using these records in preparing their income-tax reports.

Farm record books have been furnished to Negro county agents for use by Negro farmers. Records completed and turned in by Negro farmers have been summarized and analyzed by this division. Some complete farm records are kept by farmers in counties in which there are no Negro county agents.

Analysis of 1942 Records

During 1943, an analysis was made of 76 complete farm accounts that were kept by farmers in 1942. These records were kept by farmers in 16 counties representing all of the important type of farming areas in the State. The analyses of these records were returned to the farmers who kept the records. In order for each operator to see how his farm compared with other farms and to more carefully bring out weaknesses that might exist, a comparison was made between each individual farm and the one-third group having the highest income and the one-third having the lowest incomes. Attention was called to the factors associated with high incomes and those associated with low incomes.

Results of this analysis were made use of in meetings of farmers and in discussing the farm business with individual farmers.

The analysis of these records together with the conclusions as to the factors influencing labor income are shown in a report, "Summary of Farm Records, 1942."

Enterprise Records

In most cases, enterprise records are joint between other divisions of the Extension Service and the division of agricultural economics. This division is responsible for the preparation of the record forms, furnishing information relative to methods of keeping and using records and for analyzing and summarizing the records at the end of the year. Use of the analyses after they have been made is a responsibility of this division and of the particular subject matter divisions concerned. The results of these analyses are taken back to the farmers who kept them and to farmers generally through printed or mimeographed publications, meetings and individual contacts. The enterprise records to which this division gave their greatest amount of time during 1943 were those of cotton, corn, small grains, peanuts, sugar cane, rice, soil building crops, legumes for hay and seed, permanent pasture and sweet potatoes.

Cotton: In 1943, 259 records of the five-acre cotton improvement demonstration were turned in for summary and analysis.

Corn: One hundred and fifty-six corn enterprise records were summarized during the spring of 1943. In the case of a few counties having a relatively large number of corn enterprise records, separate summaries were made on a county basis. The results of these records were used by county agents and other extension workers in meetings, news articles and other ways.

Small Grains: Two hundred and sixty-five small grain enterprise records consisting of 121 wheat records, 71 oats records and 73 barley records were sent in for summary and analysis in 1943. The results obtained from these records were sent to the farmers who kept the records and were used by this division and the subject matter division concerned in meetings, news articles, etc.

Peanuts: There has been more than a usual amount of interest in peanut growing since the beginning of the war. The acreage of peanuts for nuts increased more than 300 percent between 1939 and 1943. Many farmers who had never grown more than a patch of peanuts before, undertook to produce peanuts for market for 1943. As a means of teaching methods of peanut production, considerable emphasis was given to peanut growing demonstrations in certain of the more important peanut counties in 1943. Twenty-eight records from these demonstrations were sent in for summary and analysis.

Sugar Cane: During the last few years, a great deal of interest has been shown in the growing of sugar cane for syrup. Certain disease-resistant varieties have been brought into the State within the last few years. Sixteen records of sugar cane demonstrations were sent in for analysis in 1943.

Rice: South Carolina was at one time the leading rice producing State of the Nation. For various reasons, the rice growing industry practically disappeared from the State. Recently there has been a renewed interest in the production of this crop, more particularly as a means of supplying rice for home use. In 1943, 19 records of rice growing demonstrations were sent in for summary and analysis.

Soil Building Crops: In 1943, 25 records of demonstrations of various kinds of soil building crops were sent to this division for summary and analysis.

Legumes for Hay and Seed: One hundred and fifty-one records of demonstrations of legumes for hay and seed or both were summarized by this division.

Permanent Pasture: Within the last few years there has been an increased interest in the establishment of permanent pastures. Various agencies working on farm problems have stimulated this interest and encouraged the establishment of pastures. As a means of teaching the proper method of establishing permanent pastures under various conditions, permanent pasture demonstrations were carried on in many counties. Nineteen records of these demonstrations were sent to this division for summary.

Sweet Potatoes: Since the production and marketing of sweet potatoes may cover more than a twelve-months' period and even within a twelve-months' period do not correspond with the Extension Service report year, it is difficult to get records of sweet potato demonstrations covering both the production and marketing phase of the crop within the year covered by the Extension Service annual report. The records of this demonstration completed in 1943 were those carried on in 1942. Sixty-six records of sweet potato demonstrations were summarized in 1943. The results of these demonstrations were sent to all growers who kept sweet potato records and were also used at meetings of sweet potato growers throughout the State and in newspaper articles and otherwise.

In addition to the analysis of the records on the production of the sweet potato crop, records were also kept on hotbeds used for the production of sweet potato plants. These records were summarized and studied as an enterprise separate from the production of the sweet potato crop itself.

Miscellaneous Crops: Seventeen records on miscellaneous crops were summarized by this division in 1942.

Poultry Demonstration Flocks: In 1943, 35 records on demonstration flocks were sent to this division for summary and analysis. The summary and analysis made from these records were put in the hands of the extension poultry specialist. This analysis was used a great deal by the poultry specialist at meetings of poultrymen and in discussing poultry production with individual farmers. Copies of the report year were sent to all flock owners who submitted records and to certain other individuals who were interested in poultry production.

EXTENSION AGRICULTURAL ENGINEERING

C. V. Phagan, Extension Agricultural Engineer

K. R. Ray Assistant Extension Agricultural Engineer

Adjustments in Conduct of Work to Meet Wartime Situations: The primary objective of the extension agricultural engineering program in South Carolina in 1943 has been to help farm people utilize more fully their farm machinery, equipment and structures as one means of accomplishing the 1943 goals.

In normal times extension agricultural engineering programs are built upon the principles of planning, selecting and efficient utilization of machinery, equipment, labor and building supplies. To meet wartime situations, however, with rationing and scarcity of so many items, it has been necessary to emphasize and go strong on the principles of care, share, repair and make it last. Such has been the key note of all schools and demonstrations on machinery and equipment.

Major Activities and Accomplishments of the Year:

Farm Machinery

General Situation: Limitation Order L-170 of the War Production Board restricted the manufacture of farm machinery and equipment during 1943. For the period November 1, 1942 to October 31, 1943 quotas for new machinery were set up at 23 percent of the 1940 production. Later amendments to this Order finally raised the production during this period to 46 percent of the 1940 production.

This drastic reduction in the manufacture of new machinery was a serious blow to South Carolina farmers especially in view of the fact that they were asked to increase production when farm labor was also a scarce item.

The big job ahead for Extension workers as well as other educational leaders in South Carolina was to assist farmers in keeping their old machinery running and to suggest ways and means of making this machinery operate at the greatest possible capacity.

Methods and Results

County-Wide Farm Machinery Repair Schools: A series of county-wide farm machinery repair schools were planned and conducted during the early part of 1943. These schools were held through the cooperation of the Vocational Education Department. The first step in arranging for these schools was a State meeting where plans were outlined and the location of the schools decided upon. The purpose of the schools was to train farmers, agriculture workers, farm machinery servicemen and others on methods of care, repair, operation, construction and adjustment of farm machinery and equipment.

Sixty-two one-day farm machinery repair schools were held in the State with a total attendance of 3,094 farmers and farm boys. In these schools instructions and demonstrations were given in the care, operation and adjustment of tractors, combines, mowers and other common types of farm machinery. In most places these schools were held in the farm shops where vocational teachers were conducting farm machinery repair courses. In some cases the schools were held in farm machinery dealers' repair shops.

Farm Machinery Short Courses: Another important phase of the farm machinery program during 1943 was the holding of six three-day 4-H farm machinery short courses at Camp Long, which is the State 4-H Club Camp. This report is reported in more detail under the section on 4-H club work.

Peanut Machinery: Some week or 10 days' time was given in the Spring of 1943 to the problem of shelling and planting peanuts. A peanut sheller was obtained through one of the commercial companies for holding peanut shelling demonstrations. Visits were made to six counties of the State where peanut shelling machines were in operation on a custom basis. As a result of these contacts several other counties and interested farmers were advised about various types of peanut shelling machinery.

One news letter was prepared on the importance of securing proper plates for planting peanuts.

Farm Machinery Check Lists and Other Literature: In the beginning of the year's program, Extension Circular No. 225, "Wartime Use of Farm Machinery," was prepared and 20,000 copies distributed to community leaders and leading farmers for use in encouraging farmers to check their farm machines early and order needed repair parts. One of the main features of this circular was the outline of, "Steps to Take in Wartime Use of Farm Machinery." These steps were as follows:

1. Check machinery and equipment for needed repairs.
2. Buy or order repair parts early.
3. Make needed repairs during slack seasons.
4. Preventive maintenance - stops trouble before it begins.
5. Share use of machinery for maximum production with minimum equipment.
6. Practice safety. Accidents aid the Axis in loss of time, loss of crops, and loss of lives.

Another important feature of the circular was the blank for listing the needed repair parts of various kinds of machines. Many farm machinery dealers stated that these were helpful in assisting farmer to get proper parts for their machines.

Extension Circular No. 227, "The Farm Shop, Tools and Equipment," was another publication prepared for general distribution to farmers in connection with the farm machinery repair program.

Forage Schools: The extension agricultural engineer cooperated again this year in the holding of forage schools which were planned and conducted through the cooperation of the State Forage Crop Committee, composed of representatives of the Extension Service, Soil Conservation Service and Experiment Station.

In these schools engineering work consisted of the adjustments and operations of ensilage harvesters and cutters, the operation of homemade lime spreaders, and the repairing and adjusting of mowers.

Publicity: News articles, circular letters, correspondence and radio were the principle means of giving publicity to the farm machinery repair program for 1943.

County Agents Report the Following Activities in Farm Machinery Work During 1943:

1. Number of demonstrations on care and repair of farm machinery 87.
2. Number of lespedeza seed harvesting demonstrations conducted 14.
3. Number of lime spreaders built in the State 51.
4. Number of homemade peanut pickers built in the State 151.
5. Number of farmers building demonstrational hay curing racks 897.
6. Number of other farm machinery demonstrations conducted 51.

Farm Buildings and Equipment

Restrictions in the use of many of the common building materials has slowed up farm building construction somewhat during the past two years. According to county agents' reports, however, there was an increase in the number of certain kinds of structures built in 1943 over the number built in 1942. This was particularly true in the case of dairy barns, hog houses, sweet potato houses, and silos, indicating farmers' efforts to produce and save greater quantities of food and feed crops.

Major emphasis has been given to the preparation and furnishing of plans needed for housing, processing and storage of farm animals and farm crops.

Methods and Results

Plan Service: Miscellaneous Publication No. 360, "Plans of Farm Buildings for Southern States," is of invaluable service to county agents and farmers in

the selection of suitable plans. This publication contains floor plans and perspective views of various types of farm buildings and equipment. Copies of this publication are in each county and home demonstration agent's office where farmers may study different plans in order to decide which ones best suit their needs and conditions. After a farmer decides on a definite plan, the county or home agent orders the working drawings from the Extension Agricultural Engineering Department at Clemson.

Equipment Plans for the Farm Home: In addition to regular blue prints or working drawings of the larger types of farm buildings, another phase of plan service work is that of plans and specifications of small equipment for the farm and home such as brooders, self-feeders, kitchen cabinets, etc. For the past several years Extension Agricultural Engineering specialists have cooperated with other subject matter specialists in the preparation of 62 agricultural engineering mimeographed leaflets. These are combined into a catalog entitled, "Equipment Plans for the Farm and Home." These publications are on file in the county and home demonstration agents' offices as a reference for ordering needed plans for farmers.

Food Storage: Increased production of food crops during the past year has resulted in increased interest in storage houses and storage equipment. One of the storage plans that has proven most popular has been the South Carolina Sweet Potato Storage House Plan, which was first designed some six or eight years ago. This plan was revised during the past year with suggestions on construction using lumber substitutes such as concrete blocks, sheet rock, etc. The concrete block house has been very popular during the past year due to scarcity of lumber.

To meet the needs and requests for information on plans for storage of canned goods, root crops, etc., Extension Circular No. 246, "The Storage of Home Produced Foods," was prepared by the Agricultural Engineering and Horticultural specialists cooperating.

News Articles: The use of news articles has been a very effective means of getting interest in making essential repairs to farm buildings and equipment. News articles were sent out on the following subjects: (1) Farm Buildings Repair Essential in Wartime; (2) Home Storage for Home Grown Foods; (3) Proper Storage Saves Bumper Vegetable Crop; (4) Proper Repairs Make a Roof Last Longer; and (5) Construct or Repair Farm Storage Places.

Models and Exhibits: Models of farm buildings and equipment continue to be one of the most effective ways of promoting better farm buildings and equipment. With the aid of the extension shop equipment, additional models of the most popular types of buildings and equipment are being made as fast as time and funds will permit. Special interest has been shown this year in the use of models of A-type sweet potato storage houses.

County agents have reported very effective results for using models in various meetings. Models seem to sell the idea of a desired type of building or piece of equipment better than just a plan alone. Home demonstration agents have also made good use of the models in the promotion of kitchen improvement, home sanitation and nutrition. Models of screens, kitchen sinks and cabinets have been used in these projects.

Record of Plan Service and Farm Building Activities: During 1943, 1,598 plans of farm buildings and equipment were sent out from the Extension Agricultural Engineering Department to the county agents and farmers of the State. Three hundred and eighty-three of these plans were in the form of blue prints, standard 17x22 size. One thousand twelve hundred and sixteen of these plans were in the form of mimeographed leaflets.

Farm building construction, according to plans furnished by the Extension Service during 1942 and 1943, are given below. These figures were tabulated from county agents' reports.

Kind of Building or Structure	Number	
	1942	1943
1. General purpose barn.....	69	78
2. Dairy barns.....	30	35
3. Hog houses.....	142	194
4. Hog self-feeders.....	272	279
5. Poultry houses.....	343	353
6. a. Number brick brooders.....	147	91
b. Estimated number brick brooders in use during the year.....	4874	4753
7. New type sweet potato houses.....	17	52
8. Number new type houses now in use in State.....	234	226
9. No. Government type sweet potato houses.....	5	13
10. No. Government type houses now in use in State.	76	113
11. Number tobacco barns used for curing sweet potatoes	235	210
12. No. other type houses used for curing sweet potatoes (as warehouses, empty tenant houses, etc.).....	85	142
13. No. tobacco barns built.....	5	10
14. No. tobacco barns using oil heating systems.....	990	877
15. Number trench silos dug.....	74	66
16. Number trench silos now in use.....	475	509
17. Number box silos built.....	15	25
18. Number box silos now in use.....	49	78
19. a. No. upright silos now in use.....	601	554
b. No. of these made of Sisal Kraft paper.....	71	64
20. No. other farm buildings and structures built according to plans furnished.....	711	754
21. No. farm buildings and structures repaired or remodeled with assistance or plans furnished.....	344	317
22. No. fire heated hotbeds built in State.....	104	150

Household Equipment

Household equipment is essential to the war effort since it is used in the processing and preserving of food. Scarcity of new equipment has emphasized the need and importance of taking better care of equipment and making repairs.

Kinds of Household Equipment

Household equipment includes a variety of items such as sewing machines, washing machines, pressure canners, sealers, water systems and many kinds and types of electrical equipment.

The rural electrification specialist has devoted the major part of his time to the repair of sewing machines and electrical equipment. This work is reported under the regular Rural Electrification Annual Report of the South Carolina Extension Service.

Methods and Results

Pressure Canner and Sealers: Pressure canner and sealers were the main line of home equipment that the Extension Agricultural Engineer worked with during 1943. Early in the year spot checks or surveys were made in some eight or 10 counties of the State to determine the condition and need for repairs to pressure canners and sealers. These surveys or check-ups definitely indicated not only the need for adjusting canners and sealers, but also the need for trained farm people in the care and adjustment of such equipment.

Twenty-one pressure canner and sealer clinics were held in the State during 1943 with a total attendance of 915 persons. Those in attendance, in addition to leading farm women, included all home demonstration agents in the State and most of the home economics workers and supervisors from the Farm Security Administration. Many home economics teachers and supervisors from public schools were also in attendance.

In these clinics demonstrations were given in the care and adjustment of cookers and sealers. Farm women who brought equipment to the clinics were shown how to make adjustments and how to use and take care of equipment. One of the important lessons brought out in most of these schools in connection with pressure canners was the importance of taking apart and cleaning safety valves. Too many farm women have neglected this important item in caring for their pressure canners.

Another worthwhile result of these special canner and sealer clinics was the training given to home demonstration agents and other leading home economists who in turn can teach these methods to farm women.

Work With Other Subject Matter Specialists: In conducting pressure cooker and sealer clinics the Extension Agricultural Engineer had the cooperation and assistance of the Rural Electrification Specialist and the Extension Marketing Specialist of Winthrop College.

Work With Commercial Agencies: One of the most effective and worthwhile features of this program in connection with that of commercial agencies was the cooperation received through the agricultural engineer of the Duke Power Company, Mr. M. T. Geddings, Spartanburg, South Carolina. Mr. Geddings not only cooperated in many of the schools, but in several he conducted them himself with the home demonstration agents and home economics teachers.

News Articles and Circular Letters: News articles and circular letters were used very effectively in carrying on this phase of work. Suggestive circular letters announcing the holding of these schools were sent out for the home demonstration agents' use.

Farm Water System and Sanitation

The rural electrification program has resulted in increased demands for farm water systems in South Carolina. Since commercial water systems have been restricted for the duration, this program has not developed to any great extent. During 1943, however, county agents report 120 farm water systems installed with assistance or plans from the county agents' offices. Twenty-six septic tanks were installed with aid or assistance from the county agents' office.

Cotton Ginning

Very little time has been given to the cotton ginning phase of work during 1943 due primarily to a rather heavy program in other phases such as farm machinery and household equipment.

South Carolina has made reasonable progress in acre yields and staple length of cotton but in matters of grade preparation, it still stands near the bottom of the list among all cotton producing States. The percentage of rough ginned cotton has fluctuated rather widely during the past eight years. The percentage varies from as high as 24.3 percent in 1935 to as low as 5.4 percent in 1938. The above percentage of rough ginning during this period has been around 15 percent.

This more or less irregular and high percentage of rough ginned cotton can be attributed to several causes including weather conditions, which is always responsible for a large amount of rough ginning. Poor ginning equipment and improper methods of gin operation are still two of the big factors which are responsible for such a high percentage of rough ginned cotton in South Carolina.

Methods and Results

News articles and circular letters were sent out to farmers and ginners from time to time containing suggestions for improving quality of cotton through better methods of harvesting and improved ginning service. Close cooperation is maintained with the U. S. Cotton Ginning Laboratory, Stoneville, Mississippi, where the latest and most up-to-date information is obtained on harvesting and handling and ginning of cotton.

Extension Cotton Ginning Specialist: During the latter part of the year the U. S. Department of Agriculture appointed three cotton ginning specialists to work in the cotton belt primarily on problems of ginning improvements. One of these specialists, Mr. J. C. Oglesbee, Jr., will spend approximately one-third of his time in South Carolina. This Federal appointment will be of great help in the State in carrying on improvement work with cotton ginner in South Carolina.

L-H Club Work

The principle agricultural engineering phase of L-H club work during 1943 was in connection with the farm machinery repair program. This work was carried on during the summer months at Camp Long. Six three-day short courses were given during this time. In these short courses 32 of the 46 counties of the State were represented with 263 boys participating. Approximately half of these boys learned to drive a tractor for the first time while the other half gained additional knowledge and experience. Two of the three days in each short course were devoted to farm shop, in the general repair of all lines of farm machinery. Some blacksmithing was given to the boys and also some work in the use of various kinds of shop tools.

In holding these farm machinery repair schools, two of the major farm machinery companies cooperated in furnishing tractors and disc harrows. One of the companies also furnished a man two days of each week to assist with the instruction work.

County Activities in 4-H Farm Machinery Work

In addition to the farm machinery repair work done at Camp Long, farm machinery schools were held in Charleston, Darlington, Chester and York Counties. These schools were primarily on the subject of the care and operation of mowing machine and tractors.

In Darlington County a two-day school was held on tractor care and operation with white boys attending the first day, and Negro boys attending the second day. Two of the local farm machinery dealers in Darlington County cooperated in these schools by furnishing tractors and equipment and also drivers to assist in teaching and training boys that were in attendance.

Irrigation and Drainage

Garden irrigation has been the principle phase of irrigation work during the past year. This has been very timely and popular subject because of its relation to the Victory Garden Program. Each county in the State has a garden sprinkling unit for use in giving demonstrations. In spite of publicity and encouragement farm people, as a rule, do not appear to be very much interested in irrigation. Where we find ideal irrigation layouts from the standpoint of available water supply, soil and topography conditions, there is usually something wrong with the farmer or person in charge. Numbers of individual visits have been made to advising regarding the installation of irrigation systems, but very few of these demonstrations have been carried through with noticable results.

AGRONOMY

H. A. Woodle, Extension Agronomist
H. G. Boylston, Assistant Extension Agronomist
C. G. Peebles, Assistant Extension Agronomist
H. A. McGee, Tobacco Specialist

Agronomy work in 1943 consisted of educational demonstrations and service to farmers in connection with soils, field crops, pastures, fertilizers, and lime.

Soils

Over 800 soil samples were taken and submitted to the Clemson College Experiment Station laboratory for analysis, and recommendations based upon results of the analyses made to farmers by county agents and specialists. Two hundred and twelve tissue tests were made in the field during the growing season and results given to farmers at that time.

One hundred and sixty-five pasture sites were classified as to soil type and suitability. General information as to clearing and drainage were suggested in each case. The amounts of lime, superphosphate, potash, and other materials needed were given for each pasture. Along with this type of work, 52 demonstrations were established on soils about which little scientific data have been established. Samples of six coastal soils, which are abundant in area, but from which very little income has been derived were taken, brought to Clemson and tested in pots to determine the best treatments. Several interesting and worthwhile deductions were made which should prove beneficial in the years ahead where more of these soils are put to work.

Liming: Soil tests have shown that 80 percent of South Carolina soils need ground limestone. Extension workers conducted a general educational program in cooperation with the AAA for the use of ground limestone and 140,982 tons were placed with farmers during 1943.

Soil Building Demonstrations, including the use of lespedeza, dairy vetch, Austrian peas, soybeans, crotalaria, cowpeas, small grains and other crops were conducted on 200 farms in 1943.

Field Crops

Cotton

In 1943 there was produced about seven hundred thousand bales of cotton on the 1,145,000 acres harvested in South Carolina. According to the Grade and Staple Service of the War Food Administration more than 90 percent of this cotton had staple of one inch or longer. Cotton being the state's most important cash crop, the Extension Service continues to emphasize the improvement program, the main objective being the production of larger yields of good quality and better staple cotton.

Five Acre Cotton Contest: The South Carolina Five-Acre Cotton Contest was planned and is being conducted for the purpose of increasing the staple value and yields of cotton in South Carolina. The use of improved varieties of well bred planting seed, profitable fertilization, better cultural practices, boll weevil control, have been very encouraging in the adoption of better practices by farmers in all sections of the state.

In 1943 there were 259 contestants who completed their five-acre cotton demonstrations and records which gave a complete history of each demonstration including variety, fertilizers, time of planting, cultural practices, cost, value, etc. Estimates were made and representative samples taken from each field.

The 1943 contest records were compiled and calculations made and checked by the Extension Service, and the Contest Committee of the Cotton Manufacturers' Association examined the records and made the awards.

During the 16 years in which the cotton contest has been conducted more than 1200 five-acre fields have been entered. All sections of the state have been represented, even a few have entered from the coastal counties where very little cotton is grown. The latest strains of the best varieties of cotton have been planted by the contestants and the production from these has been a source of good planting seed, and in many cases have become key growers of good first year seed in the different communities.

The benefits of planting good seed of improved varieties in increasing the staple length of the state's cotton crop is show in the table below which gives a comparison between South Carolina and other Southeastern States in the production of 15/16 inch or longer.

Percentage of Crop 15/16 Inch or Longer				
State	1930	1935	1940	1943
South Carolina	53.3	81.4	97.1	99.7
North Carolina	40.7	69.7	97.8	96.5
Georgia	15.8	48.6	82.0	92.7
Alabama	5.4	13.5	77.1	85.5

*Estimated staple length of upland cotton Dec. 8, 1943, War Food Administration, Atlanta, Ga.

Comparison of South Carolina with Other Southeastern States in Percentage of Crop 1928 and 1943 Which Was One Inch or Longer

State	1928	1942	1943
South Carolina - - - - -	18.6	85.6	90.5
North Carolina - - - - -	5.4	69.5	71.4
Georgia - - - - -	3.3	50.9	49.7
Alabama - - - - -	1.9	35.8	35.6

There was a general belief among farmers in South Carolina prior to the beginning of the cotton contest that larger yields of cotton could be produced from varieties having short staple than from those varieties producing one inch or longer staple. The results of 16 years of the cotton contest show that the larger yields are produced by the better staple varieties.

One Variety Cotton Improvement: In 1943 this project was continued in co-operation with the Bureau of Plant Industry, U. S. Department of Agriculture, and has shown substantial progress over previous year. The table below gives a summary for 1940 to 1943 inclusive.

Year	Number counties	Number communities	Members	Acres in adopted variety
1940	7	10	582	8,488
1941	13	16	1,179	24,732
1942	17	23	1,475	32,279
1943	18	31	1,985	43,334

In 1943 visits have been made to counties having one variety organizations and with the county agent have gone into these communities to talk with the officers and ginners to help and encourage them to keep up the development of the program (1) keeping up the seed, (2) getting all of the acreage possible into the variety, and (3) keeping out other varieties as far as possible.

Smith - Doxey Grade and Staple Service: There were a total of 52 applications made for grade and staple service by groups of farmers in the state in 1943. Of the 32 organized one-variety communities 25 of them applied for and received this service. The other 27 were applications from other groups just for grade and staple service. Practically all are old groups who have been getting the service before. We continue to urge farmers to properly organize for cotton improvement then get grade and staple service if desired. We find in some cases where grade and staple service has been received interest develops in an improvement program for the production of better cotton.

Following is a summary of all organizations which have received the grade and staple service:

Number	Member	Acres in one variety	Acres in other varieties
52	6,772	124,900	13,153

Tobacco

Permanent Tobacco Plant Beds:

The first effort, on which records are available, to make and maintain a permanent tobacco plantbed was at the Oxford, N. C. Experiment Station during the year 1916. The bed was constructed of board sidewalls and the natural soil was treated with stable manure supplemented with commercial fertilizer. Steam was used as the sterilizing agent for the control of weeds and disease organisms. This bed was continued for two years when the bed was pronounced a failure and abandoned. Steam sterilization was found to be expensive and not practical for general farm use.

It is obvious that soil sterilization is necessary in maintaining a permanent tobacco plantbed and no further serious efforts have been made since 1916-1917, in this direction due to the fact that no practical sterilizing agent was available. In 1940, cyanamid was tried out in this state as a means of weed control on plantbeds. The results obtained were inconsistent. That is; perfect control was obtained in one location and a complete failure in another. This treatment, of course, was not satisfactory and was abandoned.

- Later, the use of ammonia was found to be a practical and efficient means of weed control, and, due to the present sources of supply can be obtained and used by the average farmer. In tests this year Uramon has been used as the source of ammonia because of the fact that Uramon is neutral, as to its reactions in the soil, and because the supply is easily available to the farmers.

Since it is known that different soils are capable of absorbing or holding different amounts of ammonia and that it is the excess or free ammonia which serves as a sterilizing agent, it becomes necessary to determine the amount of ammonia a soil will hold or absorb before successful sterilization can be obtained. This information can be obtained by chemical analysis, but it is obvious that we do not have enough chemists to analyze the soil from all the plantbeds in the state. Consequently, a simple means of determining the amount of Uramon necessary to saturate each plantbed with ammonia had to be provided.

In conversation with Dr. F. G. Keenan, of the DuPont Experiment Station, Wilmington, Del., it was decided to work out a simple method, which every farmer could use, and at the same time, be sure of the success of the treatment and at a minimum cost.

For the above purpose we worked out, what we call, the jar method of determining the exact amount of uramon necessary to use in order to obtain free ammonia on any given plat of soil. We take four quart fruit jars. Label these jars Nos. 1-2-3-4. Select a sample of soil from the plantbed to be treated and fill each jar from this sample. Put one half level teaspoon of uramon in jar No.1, three quarts in jar No. 2, one teaspoon in jar No.3, and one and a half teaspoons full in jar No. 4. The soil, of course, must be slightly moist and the jars sealed. After the jars have stood in a fairly warm place for four or five days, the farmer begins the smelling test. He opens jar No. 1 and smells to determine whether or not any free ammonia is present. If none is present in jar No.1 he opens jar No. 2 and, so on, until he finds the required free ammonia. The first jar, running 1-2-3-4, in which free ammonia is present, indicates the amount of uramon to be assured of getting perfect weed control.

The following table has been prepared for the convenience of the farmer and others who wish to test out this method. Quart fruit jars are used.

Fruit Jar Number	Weight of Uramon per Quart of soil	Approximate Convenient measure for Uramon	Lbs. Uramon to be used per Sq. Yd.	Lbs. Uramon Required per 100 Sq. Yds.
No.1	2 grams	1/2 teaspoonful	1/2 pound	50 pounds
No. 2	3 grams	3/4 "	3/4 "	75 "
No. 3	4 grams	1 "	1 "	100 "
No. 4	6 grams	1-1/2 "	1-1/2 "	150 "

Before putting the "Fruit Jar" method of testing into use we checked results with chemical analysis and found the above scale of measure to be pretty nearly accurate. It is, in fact, accurate enough for practical purposes and was depended upon entirely for treating more than 1000 sq. yards of demonstration plantbeds this year.

It was interesting to observe the difference in the amount of uramon required on our 16 different demonstrations. The amount required to give off free ammonia varied from 50 pounds uramon per 100 sq. yards to 200 pound in, at least, one instance. 75, 100 and 150 pounds was the usual requirement.

The following listed precautionary measures are given: Don't use more than the fruit jar test indicates is required. Don't apply uramon after cold weather. Uramon should be applied on plantbeds, in this state, not later than 15th of October. It is preferable to apply it in September. Don't soak with water after applying uramon. The soil should have enough moisture to be in good tillable condition, but not wet.

After the proper amount of uramon has been thoroughly mixed into the top soil (3 to 4 inches deep) and the surface of the bed raked and leveled and packed, sow a little extra uramon on top of the soil and sprinkle lightly with water. Use just enough water to cause the uramon to dissolve, but not enough to cause the ammonia to leak down into the soil.

In every case it was recommended that the plantbed be built in the farmer's yard, convenient to water and where it would be protected from prevailing winds. The beds were then laid off running East and West, with the high wall on the North and the low wall facing the South. This affording the best possible protection from the cold winds and also the longest exposure to the sun.

In all demonstrations, but three, the farmers have laid a pipe line direct to their plantbeds where they can attach a garden hose and water their beds as often as required. The three cases not provided with running water are so situated that water from a hand pump is available for watering the beds.

In order for one to have a permanent plantbed, one must have a permanent wall surrounding the plantbed site. We, therefore, considered building the wall of brick, poured concrete or concrete blocks. After investigating the cost of construction by our engineers, concrete blocks was found to be the cheapest form of construction and the concrete block type of bed has been chosen as standard until labor becomes more plentiful so that concrete can be poured economically or the price of brick comes down within keeping with the cost of concrete blocks including construction costs.

Materials required.

170 - 4 x 8 x 16 in. concrete blocks
6 - sacks cement
1 - sack lime
2 - cu. yards sand
5 - pounds 20 penny wire nails

Use 1 to 3 mixture, adding a small amount of lime each time it is mixed.

Cost:

Concrete blocks	\$17.00
Cement	4.80
Lime	.80
Sand	1.00
Nails	.40
	<u>\$24.00</u>

Approximately \$1.00 per square yard.

It has been stated that these plantbeds have all been built in the farmers yard near the house. In most cases the best location for the plantbed did not provide suitable soil. We, therefore, had to throw out the soil within the plantbed area and haul in 8 to 10 inches of suitable plantbed soil. This, of course, adds somewhat to the total cost and is not included in the above estimate. All of this cost represents an outlay of a permanent nature and will not recure from year to year as is the case with the present method of plantbed construction and maintenance.

The amount of money spent annually, by South Carolina farmers, in the production of tobacco plants, is more than sufficient to build all the permanent beds necessary to grow the 450 million plants required to set the South Carolina crop.

Blue Mold Control

A new method of applying paradichlorobenzine for the control of blue mold was worked out on the farm of Mr. J. T. Squires, in Dillon county.

Mr. Squires has 1800 square yards of beds located in a broad open field exposed to all the wind and weather that might come. Incidentally, we were having an abnormal amount of cold wind at that time and the problem of making the beds air tight looked to be an impossibility. After trying several methods of making the walls (boards) of the bed tight it was decided that they could not be made tight by any means at our disposal. We, then, conceived the idea of putting the treatment down on top of the plants and not take a chance on using the sidewalls at all.

After all braces and cover supports were removed from the beds the plantbed cover was spread over and placed directly on top of the plants with no support whatever except the plants themselves. One and one half pounds of paradichlorobenzine crystals per 100 square yards was then spread evenly over the bed on top of the regular plant bed cover. After this, the heavy cover was spread on top of the other cover with the borders being pressed down around the sides and ends and made fast by weights sufficient to prevent the wind blowing them up and allowing the air to get under the heavy covers. Then, in order to do a complete job, the hose was turned on and the heavy cover wet sufficiently to practically exclude all outside air.

This demonstration was followed very closely because of the danger which existed of burning the tobacco plants coming in direct contact with the paradichlorobenzine crystals. To our surprise and delight we did not get any burning at all, but we did get blue mold control with one night's treatment.

Mr. Squires operates two farms and he had 1800 square yards of plantbeds on each farm. He only had 500 yards of heavy cover and could, therefore, treat only 500 square yards of plantbed each night. Consequently it required eight days, treating each bed one time for him to get around to all of his plantbeds. The outcome was that the blue mold was eliminated from all of his plantbeds with only one treatment being given each night.

The above described method of blue mold treatment compares with the side and center board method, as first used; the wire basket method, used later,

and the plantbed cover method which is generally used at the present time. The board and wire basket method of applying paradichlorobenzine crystals necessitated daily applications of fresh crystals and careful supervision of putting on and taking off the heavy cover. Under this method of treatment the farmer became weary of tracking all over his farm to perform this service and consequently the treatment was given up before the job was completed and the treatment pronounced a failure. From 10 to 15 pounds of Paradichlorobenzine per 100 square yards was required under this method of treatment to obtain complete immunity to the ravages of blue mold.

The next method, and the one generally in use at the present time consists of applying or sowing the paradichlorobenzine crystals on top of the regular plantbed cover stretched tight on top of the boards or poles, making up the sidewalls of the bed, and then spreading the heavy cover over and on top of this making the sides as tight and as airtight as is possible under existing conditions. From 3 to 4 pounds of crystals to the 100 yards per application is required for this method of treatment and the treatment must be repeated for three to four nights in order to obtain perfect control.

So then, we have one method of applying the paradichlorobenzine treatment which is expensive and requires so much of the farmers time that he is not disposed to carry it through; another, which is somewhat less expensive, but requires more time than the average farmer is willing to give it and last, the new method, which has proven, so far, to be absolutely safe and sure and requires very little of the farmer's time and also little expense for materials used.

There is one other factor which should be explained. Where 3 to 4 pounds of crystals are applied on top of the plantbed cover stretched above the tobacco plants there is always the danger of rains coming during the night and water forming sags or pockets in the heavy cover causing the crystals to wash and settle down into these pockets and produce severe burning of plants. The burning being caused by too great a concentration of gas in one particular place. Whereas with the new method, we do not have such pockets to form and the rate of application of crystals is so light there is no danger whatsoever in getting any injury to the plants.

Other Work With Tobacco Growers included modified topping demonstrations, wide and narrow row demonstrations, and aromatic tobacco demonstrations.

Corn

The acreage of corn in South Carolina is larger than the acreage devoted to any other crop. Since we cannot materially increase our corn acreage, our chief problem is the low average yield per acre. Our average yield per acre must be increased in order to produce sufficient corn to feed the people and livestock in the state. In order to maintain a diversified and livestock system of farming, our farmers must increase the production of feed grains, especially corn.

Lack of sufficient moisture is the most important factor limiting corn production in South Carolina (especially is this true in the Piedmont section). This can be overcome to a large extent by planting corn on better sites, increasing organic content of soils, and better preparation and tillage practices. Of course, hybrid corn is also more drought resistant, but we must have more adaptable hybrid varieties developed here in South Carolina, and such varieties must be more weevil resistant.

The following table shows a summary of the corn demonstrations conducted by county agents in 1943.

Summary of Corn Demonstrations in 1943

Number of counties	Number of dems.	Number of acres	Average yield (Bu. per acre)	Average cost per bushel
34	191	1,190.9	47.1	.43

Small Grains

With an annual acreage of well over one million acres of small grains (oats, wheat, barley, and rye), South Carolina is continuing to lead all crop rotations and South Carolina soils. Small grains furnish one of the most dependable sources of feed, and also enables farmers to grow two crops on the same land during a 12 month's period. Small grains are also furnishing excellent winter and spring grazing, spring hay, winter cover, and silage as well as a dependable grain crop.

Oats make up the largest acreage planted to small grains in South Carolina. However, wheat (for home use) and barley acreage are increasing rapidly. Rye is used principally as a cover crop, and there is still only a small acreage of rye harvested for grain. The increased planting and production of small grain crops has been encouraged and will continue to be encouraged, since such a program fits so well into the program of the average South Carolina farmers.

The table below shows a summary of the small grain results demonstrations conducted by county agents in 1943.

Number of counties	Number of dems.	Number of acres	Average yield (bu. per acre)	Average cost per bushel
<u>OATS</u>				
29	76	1,157.2	14	.37
<u>WHEAT</u>				
32	94	642.3	21.9	.73
<u>BARLEY</u>				
25	48	429.2	30.9	.62
<u>RYE</u>				
2	2	38	22.6	.57
<u>HEGARI</u>				
3	12	94.75	39.6	.31

Annual Grazing

South Carolina farmers are turning more and more to the use of annual grazing crops. Annual grazing is proving its value even on farms where there are good permanent pasture. There are still many farms that do not have suitable sites for permanent pastures, so they must depend entirely on annual grazing. Some of these farmers are very successful.

Early heavy seedings of small grains and small grains and winter legume mixtures provide excellent winter and spring grazing until the permanent pasture can be grazed in the spring. An increasing number of farmers are setting aside certain definite fields to be rotated exclusively in annual grazing crops. These fields are fertilized with as much farm manure as possible and are kept in a high state of fertility. Many farmers have found that the annual grazing field is the most important and most profitable on the entire farm.

The annual grazing system has been most highly developed in the Piedmont section of South Carolina. However, the system is rapidly extending to the

Coastal Plains area. Farmers in the Coastal areas have the advantage that their fields can be grazed more often without soil injury, which does sometimes happen in the Piedmont section during rainy weather.

Annual Grazing				
No. of counties	Number of dems.	Number of acres	Total number animal units grazed	Total number of days grazed
14	39	804	1382.5	1,816

Silage

Since silage is the cheapest source of stored feed on the farm, the Agronomy Division is particularly concerned with the production of corn, soybeans, and sorghum for silage. Small grain silage is also gaining in popularity. We have also found that lespedeza, lespedeza sericea, and many other crops can also be used successfully in making good silage.

Our best silage is made from a mixture of corn and soybeans, however, since corn is a very uncertain crop in many sections, other crops have to be substituted. Silage is used in feeding both dairy and beef cattle, and it furnishes a most economical feed which is absolutely necessary in a successful system of livestock farming. The 1943 forage crop schools as usual featured the production and harvesting of silage crops, silo construction, and silo filling.

Silage				
Number of counties	Number of dems.	Number of acres	Yield per acre tons	Cost per ton
4	5	53	9.2	\$3.60

Forage

The Dairy, Livestock, and Agronomy Divisions cooperating with other agencies held ten forage crop schools in ten counties over the state in 1943. These schools were conducted on a county wide basis this year and in some instances only community schools were given.

All phases of forage crop production, harvesting and curing were demonstrated. Whenever possible other timely demonstrations were given at the schools.

The attendance of farmers in most cases was small as compared to previous years. However, this was to be expected due to wartime conditions, shortages of labor and means of transportation.

These schools help considerably toward improving the quantity and quality of forage and should be again emphasized when normal conditions return.

Summary of Forage Schools

Anderson	127	Marlboro	97
Chester	33	Newberry	112
Darlington	109	Oconee	26
Dillon	28	Union	58
Greenwood	78	York	62
Marion	30	TOTAL	760

Peanuts

The Agronomy Division continued to emphasize the necessity for increased peanut production during 1943. Many farmers planted peanuts without any expectation of profit, however, most farmers did make a profit on their peanuts in 1943 due to the fact that a better system of marketing was arranged and due to the fact that better prices were paid. The bulk of the peanuts produced in South Carolina were grown in the "Peanut Belt", consisting of Aiken, Barnwell, Allendale, and Hampton counties. Most of the peanut production in 1944 will probably continue to be centered in these counties.

Due to extreme shortages of labor and equipment it would have been impossible to harvest the 1943 peanut crop without the help of the war prisoners. Many people were rather afraid that the plan of using war prisoners would not work out very well, but as a whole the plan was successful in all ways. Only a very small percentage of the peanut crop was lost because it could not be harvested.

During 1943 the Agronomy Division continued to assist county agents in conducting peanut harvesting and curing demonstrations for the benefit of new peanut growers. Regular results demonstrations were also conducted with peanuts, together with special result demonstrations showing the value of shelling, treating, and dusting peanuts. Many farmers who had never grown peanuts before were so successful that they will probably continue to grow peanuts even after the present emergency has past. A summary of the peanut demonstrations is shown in the following table.

Summary of Peanut Demonstrations for 1943

No. of counties	No. of dems.	No. of acres	Average yield per acre	Ave. cost per acre	Ave. value per acre
15	30	137.4	904.3	\$29.68	\$64.65

Legumes and Hay

The production of bright green leafy legume hay was emphasized during 1943. This program was especially important due to the shortage of protein feed. The results of the program are hard to measure, but from observations all over the state everyone seems to agree that a much better quality of hay was cured in 1943 than in any previous year.

The production of perennial hay increased during 1943. This was particularly true in respect to kudzu. We found that many farmers still believe that it was impossible to cut and cure kudzu for hay. However, numerous kudzu hay cutting and curing demonstrations all over the state have fairly well convinced the farmers that the kudzu can be easily cut and cured. Some of the best hay produced in the state during 1943 was kudzu hay, and the probability is that the acreage of kudzu cut for hay in 1944 will be about the acreage cut for hay in 1943. In spite of what has been done there still remains much educational work to be accomplished in this direction.

Following is a summary of legume demonstrations conducted by county agents during 1943:

Summary of Legume Demonstrations for 1943

Crop	No. of counties	No. of dems.	No. of acres	Average yield	Average value per acre	Average cost per ton
Lespedeza	29	78	1,023.5	1.28	\$48.19	\$7.87
Alfalfa	1	1	5	2.4	36.00	22.58
S. grains & legume mixtures	6	10	50.3	1.46	10.24	8.83
Kudzu	14	27	259	1.3	36.36	7.20
Soybeans	1	1	10	.75	22.50	17.80
Cowpeas	11	17	259	.92	38.42	15.91
Lespedeza sericea	4	6	25	2.4	61.37	7.50

Summary of Legumes for Seed Demonstration for 1943

Kind	No. of counties	No. of dems.	No. of acres	Average yield per acre	Value per acre
Lespedeza	23	57	784.2	352.7 lbs.	\$52.71
Cowpeas	2	2	7	9.3 bu.	24.90
Soybeans	19	42	500.3	7.9 bu.	37.62
Crimson clover	5	6	29.5	203.7 lbs	38.60
Crotalaria	2	8	245	191.8 lbs.	----
Sericea lespedeza	1	2	6	308	58.75

Summary of Soil-Building and Cover Crop Demonstrations for 1943

Number of counties	Number of demonstrations	Number of acres
14	47	713.5

Permanent Pastures

Permanent pasture development in South Carolina depends to a large extent upon the intelligent use of liming materials, phosphate, and fertilizers. A soil reaction of 6.0 to 6.5 pH is not only desirable but essential in order to establish a good pasture sod. Bermuda and Dallis grasses are the most nutritious and hardy of the grasses adaptable to permanent pastures in South Carolina. Common lespedeza, Hop clover, and Ladino clover has proved successful in some sections and may assume more importance as a pasture legume. Carpet grass continues as one of the grasses often found in permanent pastures in the lower section of the state, however, many farmers have already found from actual experience that Carpet grass is less nutritious than Bermuda or Dallis. Many of the farmers in the Coastal Plains area are now destroying their Carpet grass sods, and by proper use of lime material and fertilizer are establishing sods of Bermuda and Dallis grasses with White Dutch clover and lespedeza.

One hundred and sixty-five pasture sites were classified as to soil type and suitability. General information as to clearing and drainage were suggested in each case where needed. The amounts of lime, superphosphate and potash and other materials needed were given for each pasture. Along with this type of work demonstrations were established on soils about which little scientific data has been determined. Samples of six coastal soils which are abundant in area but from which very little income has been derived were taken, brought to Clemson and tested in pots to determine the best treatments. Several interesting and worthwhile deductions were made which should prove beneficial in the years ahead when more of these soils are put to work.

The Pasture Committee continued to study the results of pasture demonstrations which are located on various soil types throughout the state. Many interesting and profitable observations are resulting from these pasture demonstrations. One of the facts that seem to have been pretty well established from these demonstrations is that we must make more use of commercial fertilizers in establishing and maintaining permanent pastures, both in the Piedmont and in the Coastal Plains area.

Following is a summary of the permanent pasture demonstrations as reported by county agents.

Summary of Permanent Demonstrations
1943

Number of counties	Number of dems.	Number of acres	Ave. cattle per acre	Ave. cattle per demonstration
18	89	2,163.20	1.3	36.3

County agents report a total of 16,605 acres of permanent pasture improved on 1,040 farms in 1943. Such improvement involved some or all of the following listed practices: clearing, drainage, contours, liming, fertilizing, and seeding. The agents estimated that 153,534 acres of permanent pasture on 11,557 farms has been improved through some of these methods.

EXTENSION FARM LABOR PROGRAM

O. M. Clark, State Supervisor
J. C. Doggette, V. F. V. Supervisor
Miss Eleanor Carson, W. L. A. Supervisor

The farm labor situation and the purpose of the Emergency Farm Labor Program were discussed with the State Agricultural Committee which consists of a farm man and a farm woman from each county of the State and representatives of the various State and Federal agencies working on farm problems in South Carolina. The State committee was helpful in giving an understanding of the labor needs, possible sources of labor in the various parts of the State and suggesting what might be done to help relieve the labor situation. The farm labor committee which is a subcommittee of the State Agricultural Committee is composed of five farm men and three women. Those actively in charge of the Emergency Farm Labor Program of the State advised with this State labor committee on several occasions during the year relative to procedures in the recruitment and placement of labor and in utilizing in the most effective manner the labor on farms.

Other Organizations and Agencies

All State and Federal agencies working on farm problems in the State have representatives on the State Agricultural Committee. These representatives assisted by contributing suggestions as to what might be done and how it might be done to help the farm labor situation. In turn, these representatives gained an understanding as to what these various agencies might do to further the labor program.

Additional organizations in the program were school officials, civic, and business organizations and women's organizations.

County Organization & Program

In practically all counties the county agricultural committees, upon request, named county farm labor subcommittees composed of representative farmers and farm women. The subcommittees cooperated closely with the county extension workers in planning and conducting the Farm Labor Program according to the needs in their respective counties.

County farm labor assistants were employed in 41 of the 46 counties of the State. Twenty-five of these assistants began work in May or June and the remainder started in July or August. In 31 cases the labor assistants were employed from the time they began work in spring or summer until the end of the year. In the other 10 counties employing labor assistants for one reason or another the labor assistants did not continue until the end of the year.

In 32 counties community or special assistants were employed during the year. A total of 134 such assistants were used, the number per county generally

varying from two to eight. These assistants were employed during the busiest season with respect to form. The period of employment of these assistants was in general for a relatively short period of time, usually from a few days to a month or a little more.

A considerable proportion of the community and special labor assistants were colored people.

The first step in getting the Emergency Farm Labor Program underway in each county was a meeting of the county farm labor committee. This committee assisted the county agent and labor assistant in devising ways and in planning means of determining labor needs and labor supplies, and in planning procedures in carrying on the program in the county. The county agent and the county labor assistant have worked closely with this committee in each county during the year.

The county agricultural committee, community committees of the various communities of the county and neighborhood leaders are not new in South Carolina. They have been used for several years in assisting in determining needs and in carrying out programs undertaken by the Extension Service. When the Emergency Farm Labor Program was started, it was natural that the local leaders should be used in determining labor needs and in assisting in locating whatever surplus labor there might be in the county and in utilizing as effectively as possible the labor available. The neighborhood leaders have been used widely and effectively in informing people relative to the labor program and in carrying out this program.

The farm wage rate committee, which in all cases is a subcommittee of the county agricultural committee, has been used to determine prevailing wage rates in the nine counties in which foreign labor prisoners of war have been employed.

Conduct of the Program

After it was definitely determined that there would be a farm labor program in 1943, a series of three meetings of county agents were held for discussing in as much detail as conditions would permit the purpose of and plans and procedures for the farm labor program in the State.

Directly after the county plans had been made and most of the county labor assistants selected, a series of three meetings of county agents and county labor assistants were held for discussing in more detail the procedures for carrying on the farm labor program. A State-wide meeting of all extension workers was held during the summer, at which the farm labor program was discussed in much detail. The State supervisor and the assistant State supervisor spent considerable time during the year working with and assisting the county labor assistant.

Schools, church organizations, civic and business organizations, newspapers, radio, etc., were used in acquainting people generally with the farm labor situation, the need for additional farm labor and in helping get workers for farms. Colored ministers were used extensively and very effectively in recruiting and placing colored workers. In some counties, which have a heavy colored population, the colored ministers, colored teachers and other colored leaders were the principle means of recruiting labor. The labor assistants working through school officials were instrumental in getting many school boys and girls to do work on farms of which those assistants have no specific records as to number or days of employment.

Labor was referred generally to farmers upon call. Where the amount of labor available was not adequate to supply the number of workers requested the number sent to each farmer was in keeping with his needs as far as the county labor office could determine. In many cases, the workers were sent out as a group rather than so many specific individuals. For example, a cotton grower would request say 40 cotton pickers for a particular day. The labor assistant recruiting these workers in town would get in touch with the local or block leader and ask him to get out this number of workers. The cotton grower's truck would come in and pick up these workers. A record of the specific individuals would not be kept.

Recruiting labor on farms for use on other farms in different from recruiting labor in towns for seasonal work. The recruiting of these workers, if they are hired hands or sharecroppers, would be done through the operator of the farm on which the workers might be found.

The only recruiting of labor for use in other states was done in a few counties adjoining the North Carolina State line. These workers were for picking snap beans in one of the bean-growing sections of North Carolina. These were boys and the recruitment was made through group leaders of these boys, such as Boy Scout leaders, 4-H Club leaders, etc.

Not a great many interstate workers were placed in South Carolina except in the trucking sections, particularly in Beaufort and Charleston counties. These counties normally use a considerable number of migratory workers for harvesting truck crops, especially Irish potatoes and snap beans. Previous to the general labor shortage, from 2,500 to 3,000 migrants were normally used in these counties for harvesting truck crops. In 1943 less than half this number was used. The Emergency Farm Labor offices of these counties kept in touch with these workers and, if they had not come to work on particular farms, assisted them in getting to farms where they were needed. The county farm labor offices also assisted them in getting gasoline for moving on to other areas where their service might be needed.

In only a few cases have county labor offices moved across county lines labor recruited for farm work. In a few cases in the tobacco counties the labor offices of certain counties recruited labor for harvesting tobacco in other counties. In a few cases in the same area the labor offices of certain counties obtained permission to recruit labor in adjoining counties. Some across-county-line recruiting of farm labor was done in the truck growing counties. In both the tobacco area and the trucking area these arrangements were worked out by the labor offices of the counties concerned. In only one case was the transportation of labor paid for out of Emergency Farm Labor funds.

A manual or circular was prepared giving an outline of the provisions of the Emergency Farm Labor Act, the purpose of it and our responsibilities with respect to the program. Suggestions were made for setting up a county organization and for carrying on a recruitment and placement program. This material was mimeographed and sent to county agents and county farm labor assistants.

Assisting Farmers in Using Labor and Resources More Effectively

One of the most valuable services to farmers of the county labor program was encouraging and arranging for a more effective utilization of labor available on farms. Plans and arrangements were made for as full utilization as possible of the more expensive farm equipment, such as tractors, combines, grain harvesters, peanut pickers, etc. Using equipment for more than the usual amount of custom work, swapping of equipment by the farmers, swapping of labor, adjustment in enterprises to the end that labor might be used more effectively, etc., were encouraged and facilitated. As the farm labor program got underway in the State just before the beginning of small grain harvest, one of the first undertakings and one of the most important relative to a fuller utilization of farm equipment was with respect to the use of combines. In practically all counties the farm labor assistants contacted the combine owners and arranged with them to do as much custom work as conditions would allow. This involved various activities on the part of labor assistants, such as finding tractor drivers for operating the tractors for pulling the combines, finding combine operators, finding laborers for the combine owners, arranging schedules for combine, etc.

A mimeographed circular was prepared dealing with the effective utilization of farm labor.

Determination of Farm Labor Needs

Various means were used in determining labor needs. In some counties surveys were made of the farms to determine the labor needs and labor supplies. This procedure gave an indication of labor needs, but in general there was a tendency for farmers to overstate their labor needs. Triple A intention sheets were fairly generally used as a means of determining the labor needs of the county and for locating any possible surplus labor available for work on other farms. In most counties neighborhood leaders rendered valuable assistance in determining labor needs and in locating surplus labor. Some counties used labor "spotters", who might not have been farm people, for locating surplus labor. In the cases where war prisoners were used, the farmers requesting them were required to certify that they were unable to obtain needed labor from other sources and were required to sign a contract for so many for such a length of time.

Mobilization, Recruitment & Placement

Various organizations and agencies were used in the recruitment of labor. Local leaders were used extensively in helping to get available labor out.

Training and Supervision for Inexperienced Farm Labor

Training in the operation of farm equipment was given at a camp owned by the Extension Service and was under the general management and supervision of the Extension Service. This camp was already equipped with all the necessary equipment and facilities for its operation. The instruction was given by the agricultural engineers of the Extension Service along with a few other individuals employed for this particular purpose. The instructions were given on the camp grounds and on farms in the vicinity. It was necessary to move some equipment to the camp. The cost of moving this equipment to the camp and the salaries of the special instructors were paid for out of the Emergency Farm Labor funds. The other costs other than board for the trainees were borne by the Extension Service. The cost to the trainees was for board while in camp. Two hundred and fifty-six young boys and young men received training in this camp.

Most of the training and supervision of inexperienced farm workers was given by the farm operators themselves. Most of these inexperienced workers were used for simple farm operations, consequently not a great deal of training was necessary. In several counties the county agents and county labor assistants trained boys for operating tractors and operating grain combines. This training was done in small groups. The county labor assistants kept in touch with these workers after they were placed on farms and assisted them further with any assistance that they might need and that he might be able to give.

Special Groups

Not a great many foreign workers were used on farms in South Carolina in 1943. Twenty-one were used for harvesting truck crops in Beaufort county. These workers were housed and otherwise taken care of on the individual farms on which they were employed.

About 1,000 prisoners of war located in four camps were used for harvesting peanuts, sweet potatoes and hay. Later two additional camps were established, one in Beaufort county and one in Charleston county, for harvesting snap beans and doing farm work of various other kinds. Still later in the year two additional camps, located at Aiken and Hampton, were established and the war prisoners used for cutting pulpwood. These prisoners were available also for, and did, certain kinds of farm work. The Extension had no part, however, in requesting the establishment of these two camps.

Labor Placements

Records show that during 1943 a total of 70,638 labor placements on 7,739 different farms.

BOYS' 4-H CLUB WORK

I. D. Lewis, State Boys' Club Agent
O. R. Smith, Assistant Boys' Club Agent

The South Carolina Extension Service in 1943 worked with 26,454 different farm boys and girls through 1,228 community 4-H clubs, reaching through the club program 21,963 farm homes. This is nearly one home in every six in the state and one 4-H member for every 12.5 available farm youth. These 4-H members started 62,410 demonstrations and completed 46,729 or 75 percent of the demonstrations undertaken.

Club members who completed their demonstrations grew 10,366 acres of crops which include 4,255 acres of garden produce. They grew a quarter of a million chickens, 803 dairy and beef cattle; and 4,000 swine and other livestock. 4-H members canned more than 375,000 quarts of food; made 11,000 garments of new clothing; remodeled 8,000 old garments; and made nearly 35,000 different articles for farm and home improvement. Club members prepared 46,000 meals and served 50,000 in their project work.

In 1943 different 4-H members as follows received definite training in: judging, 1,660; giving demonstrations, 1,311; recreational leadership, 1,760; music appreciation, 3,736; health, 10,199; fire and accident prevention, 10,242 wildlife conservation, 1,430; keeping personal accounts, 2,025; use of economical information, 2,028; camps, 2,491; members who had health examinations, 5,777; and members engaged in community activities such as improving schools and conducting local fairs, 1,822.

Better Farm Living and War Effort Program. Besides their regular demonstrations, 16,954 club members enrolled in the BFL and Food for Victory program to help farm families grow 75 percent or more of food and feed needed for family use and with some extra for the soldiers. Many examples of this work could be given. Only one, however, is given. Two Abbeville county brothers, Andy and Robert Palmer, wanted to do their part in the war effort program. They grew 1,100 broilers which was enough to feed two fighters with 100 broilers left.

They had 225 hens from which they got 135 to 157 eggs per day or around 2,919 dozen for the year-enough to feed six soldiers. Andy grew out a Victory pig with which to buy war bonds and the latter part of the year he had a dairy cow in production.

These brothers helped grow the farm food and feed, milked four cows, worked to improve the permanent pasture and helped to set out 4,000 pine seedlings. They made use of the best farm methods for soil improvement through an increased use of cover crops.

The above example is an example of long hours of regular work which fell to to the lot of 4-H members when not engaged in their regular 4-H project activity. The splendid work on the farm helping to meet the labor shortage helped some parents to secure BFL certificates for producing 75 percent or more of the food and feed needed for farm use. 4-H members take pride in the fact that they worked harder in 1943 than ever before to do their part in the war effort program.

Tied in with the BFL program is a stronger program with 10,199 members carrying out health practices and 5,777 having health examinations to find and correct physical defects.

Fat Stock Shows and Sales. In 1943, 4-H members participated in six of seven fat stock shows and sales held in the state. In each show where club members exhibited they showed the grand champion and a majority of the reserve grand champions. Resulting from these contests, 4-H members showed 197 of the 1,158 animals sold at auction following the shows. The 1,158 animals weighed 708,751 pounds and sold for an average of 15.1 bringing \$107,436.39 to the producers.

Livestock Judging Contest. Supplementary to selecting, feeding, fitting, and showing these fat animals, 4-H members participated in a livestock judging contest. County teams were trained. By elimination contest district teams were elected, these contests being held in connection with fat stock shows at Anderson, Florence, and Orangeburg. Later the district teams competed at Clemson for State honor with an educational trip to the National Club Congress for high scoring team. The Anderson team, with assistant county agent J. H. Hopkins, coach, won the trip composed of: Edwin McClain, Cecil Gleen, Albert Busby, and Towers Bolt. Robert Johns of Colleton county won the trip to the National Club Congress for scoring the highest number of individual points in the State contest.

The most important lesson learned by the 4-H members growing fat calves at the Walterboro show was that calves which had been on feed the longest made the best showing. All five calves graded choice were on feed 10 to 11 months. Of the 13 grading good only one had been on feed longer than six months. Calves grading medium had been on feed less than six months, in general five months or less. A former beef calf club member, Billy Flowers, and member of the first livestock team to get the trip to the National Club Congress, selected the grand champion animal for his sister to feed out. This young man was also State health champion in 1941.

4-H War Institutes. Twenty-two of the 46 counties in the state held 4-H camps in 1943 with an attendance of 1,859. The usual type of program was converted into a war-work program with recreational activities scattered throughout the day to maintain interest and enthusiasm. The older boys received instruction in tractor driving; maintenance and repair; farm machinery care and repair and elementary forge work. Members to the number of 133 who had not operated a tractor before they came to Camp Long learned to operate a tractor while at camp. In addition, 129 members who had tractor driving experience before they came to camp gained helpful information and experience by taking the tractor course given by the Clemson College Extension Engineer C. V. Phagan and J. S. Bomar, Allis-Chalmers Farm Machinery representative from Columbia. Of the 262 members, 14 years old and above taking the tractor course, five were girls.

Through the cooperation of farmers in the Camp Long community who willingly allowed their farm machinery to be used for the purpose of instructing older members in lubricating, repairing, and generally overhauling this equipment, a very practical work period was made possible. In addition, these club members received instructions in elementary forge and shop work.

Older 4-H girls were given demonstrational instruction in canning, in care and repair of clothing and household equipment, while the younger boys and girls the following practical work was given; making a hay curing rack, methods of insect control, forestry, citizenship, swimming instructions, 4-H work, farm and home safety and health habits. Particular emphasis was given to fall gardening. Various Extension specialists were present to give war time and helpful information suitable to the different age groups. Club members participated in various programs and assemblies, evening vespers, talent night, stunt and camp fire programs and received swimming instructions. Two hundred and thirty-six club members learned to swim. The War Training Institutes served a good purpose in developing skill and teaching good scientific methods. Then, too, the 4-H members were afforded opportunity for fun and recreation along with the work, this being the only time off during the year.

In addition to the 4-H War Training Institutes held at Camp Long during the summer, the Annual 4-H Conservation Institute, the State 4-H Council, The State Meeting of the County Council of Farm Women and other groups held session there, including a farm labor conference.

War Training Institutes other than Camp Long were held at King's Mountain State Park for Chester and York counties; Camp Bob Cooper for Clarendon; Camp Nison for Horry; and at Rocky Bottom for Pickens county. Pictures illustrating the work at these war institutes and other phases of the work are found elsewhere in this report.

4-H at Fairs. Twenty counties with 372 4-H boys made 492 exhibits at fairs. These exhibits made 498 placings and won \$2,486.74 and including premiums largely on dairy and beef cattle, poultry, swine and corn.

This year 4-H members won most of the premiums in the open classes of the dairy department and a majority of the awards in the swine department in addition to the awards in their own junior department classes.

While at the State Fair, Governor and Mrs. Olin D. Johnson entertained 35 outstanding club members at the Governor's Mansion on the afternoon of October 22nd. They invited four club members-two boys and two girls out of this group to remain in their home overnight. These four members were chosen from prominent participation in the 4-H bond sale for the sponsorship of the S. S. A. FRANK LEVER Libery Ship plus all round 4-H and citizenship work.

The members spending the night at the Mansion were: Frances Williams of Sumter county; Miriam Sowell, Chesterfield county; Edwin Carvin, Aiken county; and Frank Flowers, Darlington county.

4-H members are getting some mighty fine lessons through their project work and exhibits at fairs. Fred Mathis of Lexington who was entertained at the Governor's Mansion on the afternoon of October 22nd in speaking of his swine work said: "In eight years of 4-H pig club work, I have sold animals and products worth \$4,316.50; used in the hime \$442.50; and won in prizes at fairs and shows \$943.00, making a grand total of \$5,702.00.

In the 4-H swine department his winnings at the 1943 State Fair were two champions, seven firsts, five seconds, two thirds, best fitted animal and best showman. In the open class department his winnings were grand champion boar, senior champion sow, junior champion sow, junior champion boar, seven firsts, seven seconds, two thirds. Fred's pig club training he sums up in these five hog management principles, which others may well use as a guide:

1. Follow a definite system of sanitation.
2. Proper feeding, including clean green grazing.
3. Care and management of brood sows before, during and after farrowing.
4. Vaccinating at earliest age possible.
5. Select only animals of merit for breeding.

A. Frank Lever Liberty Ship. In August 1943, the Clemson College Extension Service through Director D. W. Watkins challenged the South Carolina 4-H clubs through the State 4-H Council which was meeting at Camp Long to sponsor the sale of \$2,000,000 worth of war bonds and stamps with which to purchase a Liberty ship to be named S. S. A. FRANK LEVER. This challenge was accepted and the final count showed a sale of \$4,444,525.97 worth of bonds and stamps-\$3,625,000.00 of which were "E", "F", "G", and 2 $\frac{1}{2}$ % bonds were certified to the Treasury Department, Washington, D. C., for the purchase of the ship.

The campaign was started simultaneously with the 3rd War Loan Drive as of September 9th and continued through October. Many fine records of sales were made by 4-H members. The most outstanding were those of two girls and two boys who took part on the launching program December 7th in Savannah. Their records follow: Fay Dunlap of York county cycled through her community to see 95 people who bought 130 bonds valued at \$6,222.50; Frances Williams of Sumter county contacted 210 people who bought 310 bonds totaling more than two hundred thousand dollars; Keith Wilson of Anderson county contacted 39 people and sold 37 and totaled \$309,912. 50; and eleven-year-old Charles Gray of Orangeburg county sold bonds to 175 people in the amount of \$80,525.50.

Promotors of South Carolina 4-H club work paid 4-H member in 1943 in educational trips, premiums, and other awards \$7,903.05. This included county and state fair premiums, fat cattle awards, pig club sponsorship, food for Victory, award and various educational trips including those to the National Club Congress.

County 4-H Councils. More than half the counties in the state have active county 4-H councils. On the occasion of the county council meeting in Dorchester in 1943, the following program was adopted:

1. Produce and conserve food.
2. Assist with farm labor in every way possible.
3. Pay special attention to the building of good health and strong bodies.
4. Keep soils in good condition.
5. Write people in the armed forces.
6. Help prevent forest fires and avoid waste.
7. Purchase war bonds and stamps.
8. Save and treat garden and field seed.

9. Improve pastures for livestock production.

National Club Congress. Seven 4-H club girls and seven 4-H club boys of South Carolina had educational trips to the National Club Congress. These state representatives were selected on the basis of having done the best work in certain lines and the trips were sponsored by various organizations and commercial agencies.

The girls, their projects, and their sponsors were: Daisy Flowers, Colleton, Record Achievement, Montgomery Ward & Company; Margaret Elliott, Kershaw, Canning, Kerr Manufacturing Company; Frances Williams, Sumter, Dress Revue, Chicago Mail Order; Frances Lancaster, Spartanburg, Clothing Achievement, Spool Cotton Company; Mary Grace Baker, Williamsburg, Rural Electrification, Westinghouse Company; Marilyn Ayer, Bamberg, Health; Harriett Gaston, Chester, Food, Servel Company.

The boys, their project excellence and sponsoring agencies were: Benjamin Barnes, Colleton, Health, The Liberty Life Insurance Company; Robert Johns, Colleton, highest scorer State Livestock Judging Contest, Thos. E. Wilson; Albert Busby, Cecil Gleen, Edwin McClain, and Towers Bolt, Anderson, State Livestock Judging Team, Roger and Big Star stores; J. E. Harrington, Clarendon, Poultry, Roger and Big Star stores.

County Extension Agents, as a whole gave 26.8 percent of their time to the development of the 4-H club program. White farm agents gave 17.1 percent of their time to 4-H club work; white home agents, 32.4 percent; Negro farm agents, 34.5 percent; and Negro home agents gave 39.2 percent of their time to the development of the 4-H program.

Negro 4-H Club Work. Besides their regular 4-H demonstration project in 1943, Negro 4-H members made a fine contribution to the BFL and War Effort program. In their regular projects, they started 40,617 demonstrations and completed with records 32,635 with an average of 80.3 percent. Many 4-H members applied lime phosphate and potash in their conservation practices. Others made use of terracing and drainage practices besides growing cover crops and improving wildlife environment on the farm. Nearly two hundred Negro 4-H members attended a War Training Conservation Institute at Orangeburg in July.

DAIRYING

C. G. Cushman, Dairy Specialists
V. A. Henry, Dairy Specialists
B. E. Goodale, Dairy Specialists

The program of the Extension Dairy Division as conducted in 1943 is reported hereinunder seven headings;

(1) Better Sires; (2) Four-H Club Work; (3) Herd Management; (4) Agricultural Engineering; (5) Marketing; (6) Milk production for family use, and (7) Miscellaneous.

Better Sires

The baby bull placement plan devised by the Extension Service has become progressively more popular, and the College Dairy Department has instituted a plan based thereon through which 90 to 100 bull calves were placed during 1943.

In the fall of 1943, plans were laid for the organization of an artificial insemination unit among institutional herds in the State which would eventually expand to include commercial dairy herds. Artificial insemination of dairy cattle on an area basis is rapidly becoming an important phase of livestock improvement.

Two county projects for better sires are in operation, one in Union County backed by the county delegation and one in Spartanburg County sponsored by the Chamber of Commerce.

Four-H Club Work

Dairy calf club work was continued during 1943 in the usual manner with 252 completions. The first Brown Swiss Calf Club in the Southeast is now being organized in the Cleveland Community of Oconee County.

Herd Management

Dairy Herd Improvement Association work was suspended in 1942 because the Division did not care to depart from its established custom of using only well trained young men of sufficient background to carry on the work with results which the Division could justify. Although some states have resorted to women and conscientious objectors as testers, we did not feel that they would be acceptable in South Carolina, and the membership agreed with us that it would be better to drop the work for the duration.

It was also decided, in the absence of an assistant dairy specialists, to make broad use of the lessons learned through five years of D. H. I. A. work rather than to attempt too many demonstrations, which, because of lack of

personal, would improperly supervised. In accordance with this plan, a circular was published which gave a concise discussion of the problems incident to the feeding and management of dairy cattle, together with definite recommendations therefor. A number of smaller, mailable circulars dealing with specific phases of milk production were also prepared and widely used to take the place of numerous demonstrations. The monthly D. H. I. A. news letter was expanded to include 2,600 producers of dairy products in the State and regular news letters containing relevant information sent out during the year.

In January and February 1943, a dairy school of the air was conducted over the radio station WSPA in Spartanburg for the special benefit of milk producers in the manufactured milk area of the Piedmont. In each of these broadcasts after the first one, a farmer who had been successful in the practice under discussion was interviewed.

The forage schools were continued during 1943 as a county project with specialists assisting the agents conducting these schools in setting up the demonstrations and at the school itself. The demonstrations conducted at the forage schools were essentially the same as in 1941 and 1942. From the suggested demonstrations, those most applicable to the section were selected for use in the various counties. Forage schools held in 1943 numbered 11 with an attendance of 760.

A special report from the Bureau of Agricultural Economics which was issued February 10, 1943 is given in this annual report because it clearly shows the results of extension teaching based on lessons learned from the analysis made of five years of D. H. I. A. records. According to this report as of February 1, 1943, South Carolina stood fourth in milk production per cow among the 13 Southern States, third in percentage of increase over the base period (1932-1941) average, and first among these states in amount of milk produced from each pound of grain concentrated fed. These favorable comparisons are a definite indication of the response of South Carolina producers to the improved practices in roughage production, permanent pasture management, annual grazing, etc., which have been advanced by the Extension Service in recent years.

In April 1943, a regional conference was called in Atlanta to discuss ways of meeting the acute feed shortage which was developing in the Southeast. Immediately after this meeting, a State conference was held in Columbia. The State Feed Conservation Committee appointed at this conference was delegated to attend a similar statewide meeting in North Carolina and had the opportunity at that time to present a report of South Carolina conditions to the Commodity Credit Corporation, with the result that considerable quantities of soybean meal and feed wheat were allocated to the State of South Carolina.

Agricultural Engineering

Two definite contributions were made to the dairy industry of South Carolina in 1943 in the field of Agricultural Engineering.

The upright double box silo has proved itself in 1943 and is expected to become even more popular in 1944 as an economical means of storing much-needed winter feed. This type silo is especially fitted to wartime conditions because of its simplicity, low cost and the fact that it requires no critical materials.

Because of the fact that producer-distributor type milk distribution must soon be replaced around the principle cities of the State by centralized distribution and family-sized units which could supply Grade A milk at less cost and less dependence upon hired labor, a small combination milking barn and milk house meeting Grade A specifications was designed to fit the needs of such producing units. A circular describing this construction has been sent to 5,500 farmers throughout the State and blueprints are also available to farmers interested in preparing for this type of milk production.

Marketing

As all marketing of dairy products in this State, except normal Grade A fluid milk demands, has been under the direct supervision of the Extension Service for a number of years, such marketing activities are reported.

Three Grade A milk routes were active in 1943, and cooperatives were organized in two cases, which, through marketing arrangements made and negotiation of new contracts, resulted in an increased price received for milk in the case of Newberry producers of from 32 to 42 cents per gallon and from 33 to 40 cents per gallon in the case of Chester producers.

A decrease is expected in cream routes and cream stations in the State as the manufactured milk industry expands here. They will continue as good market outlets, however, in areas not closely adjacent to milk receiving stations.

During 1943, as was anticipated, a great deal of time was spent working with the Federal agencies on marketing and distribution problems.

The Office of Defense Transportation set up a statewide committee, with a representative of the Extension Dairy Division as chairman, to make a survey of the milk transportation facilities and make any necessary adjustments. Because of the work which had been done by this office in 1942 toward getting the milk distributors in South Carolina to adopt conservation practices, the investigation showed that there was little need for consolidation arrangements in this State because of the absence of excessive duplication in routes.

During the year, help was given three separate areas of the State toward obtaining higher OPA ceiling prices on bottled milk. The first case was in Greenville, South Carolina, where an increase of one cent per quart was granted on the basis of facts shown in a brief prepared by this office at the request of the Greenville Milk Producers and Distributors Association which was based on analyses of D. H. I. A. records accumulated over a five-year period.

This office has also assisted the producers of the Chester and Charleston areas to formulate similar petitions (based on D. H. I. A. record analyses) to the Office of Price Administration with reference to an increase in ceiling prices. No action has been taken by the OPA in these two cases at the present time.

A summary of statewide cost of fluid milk production has also been prepared for submission to OPA.

A milk quality program which has been vigorously pursued in the manufactured milk area of the State has been so effective as to cause the Southern superintendent of Borden and Company to make the statement that the milk received at the Chester and Newberry plants is much superior to any being received at any Borden plant in any other Southern State. This statement was supported by a fieldman when he said the results of the sediment tests were the most remarkable in his experience.

Milk Production for Family Use

In the belief that feed production and low quality are the inhibiting factors to more widespread use of the family cow in South Carolina, the work of the Extension Service has been focused upon these two items.

Work on feed production for this purpose has been through a campaign conducted for the past three years emphasizing quality hay and annual grazing.

Special work on quality dairy products was done during the summer of 1943 when Professor B. E. Goodale of the College Dairy Department was associated with the Extension Service for three months. One-half of his time was spent holding 25 dairy products processing demonstrations for the benefit of agricultural workers in the State and farm leaders. These demonstrations were highly commended by extension personnel as well as other agricultural workers and farmers attending.

The rest of the time Mr. Goodale was on the Dairy Extension staff was spent in visiting the leading processing plants of the State and making recommendations of improved practices to proprietors and employees.

Miscellaneous

A considerable amount of time was spent in the summer of 1943 arranging a tour for the Legislative Livestock Committee of the Senate and House of Representatives to make a study of the part the livestock industry can play in an agricultural system, how it has been developed in North Carolina and Tennessee and its application to South Carolina conditions. A member of the Extension Dairy Division accompanied the Legislative Committee on this tour and

other tours were arranged and attended by other members of the Clemson Livestock Committee appointed by Dr. R. F. Poole.

At the request of leaders in Oconee County, a committee from the Extension Service made a study of the Cleveland Community which is in a series of valleys adjacent to the Blue Ridge Mountains. After a preliminary survey, the committee recommended an intensive farming system including truck vegetables, poultry, bee-keeping and milk production. The success of the Blue Mold cheese experimental work done by the college in the Stumphouse Mountain tunnel makes it seem reasonable that there is a strong possibility for development of this business after the war which would make use of any milk supply built up in that section.

Because of the need for income from the sale of excess stock and from salvage value of dairy animals, as well as good production, it was decided to introduce the Brown Swiss breed in this section as they met these requirements. Also, the fact that this breed had been introduced by a mountain station in Kentucky, had done well there and been favorably received by the farmers in that region led this Division to believe that Brown Swiss cattle would be ideal for this community. As a results, a foundation of 16 head was placed on nine farms and at the present time, more orders are being received for foundation stock.

It is not the intention of the Extension Service to replace other established breeds with Brown Swiss but to recommend them only in the mountainous section of the State as family cows and for the production of milk for manufactured purposes.

ENTOMOLOGY AND PLANT PATHOLOGY

W. C. Nettles, Extension Entomologist and Plant Pathologist
E. S. Prevost, Extension Bee Specialists
D. R. Hopkins, Boll Weevil Specialists

Boll Weevil Control

All recognized methods of weevil control were advised during the year. Considerable time was spent visiting the counties and making news releases, giving information on boll weevil abundance and recommendations. In the annual reports, the county agents gave the following statistics: 21,285 farmers were estimated to have applied either the 1-1-1- mixtures and all others applied by mopping to an estimated area of 234,578 acres; 996 farmers were estimated to have used calcium arsenate dust to control boll weevil; 12,519 farmers were estimated to have picked squares; 21,856 farmers were estimated to have destroyed cotton stalks on an area estimated at 277,121 acres.

Cottonseed Treatment

Cottonseed treatment as a means of reducing losses from shreshin and seed decay, which enables farmers to secure better stands and better yields, was stressed during the year. Special emphasis was given to treating cottonseed with machines as quite a few seed treating centers have been established in the last few years. County agents estimated that 75% of cotton acreage was planted with treated seed or 791,549 acres. Noteworthy progress was also made in getting seed delinted or reginned prior to treatment. Naturally, the linters themselves were a contribution to the war effort. An appreciable saving of mercury dust was effected as the fuzzy seed required considerable more dust than those from which most of the fuzz had been removed.

Fence Post Preservation

During the fall of 1937 the fence post preservation work was begun. Posts treated by the trough method were placed in the ground early in 1938. A great many of these posts are still sound. Where posts have decayed one does not have to search far for an explanation. Some of the factors accounting for the lack of preservation are as follows:

1. Failure of trough or barrel to hold preservatives.
2. Failure to season with large end up.
3. Failure to place large end in ground.

Wireworm Control

Six years of intensive work on the wireworm problem is bearing fruit. Progressive farmers were quick to realize that much of this wireworm damage was avoidable. There is an ever increasing tendency to stress fields where successful results have been secured.

Extension Circular No. 163 "Meeting the Wireworm Situation" made recommendations which are still the best. *Crotalaria* may not be desired by every farm on every field, but the statement can be made that no serious wireworm damage has ever been found after a crop of small grain or *crotalaria*.

Corn Insects

The unusual assortment of insect enemies of the corn plant in South Carolina doubtless has an important bearing on the low yields of corn. From the time the corn seed germinates, until it is eaten or planted, it is subject to damage by the ever alert insect. Certain of these corn insects, such as the larger cornstalk borer, the corn earworm, and the corn root worm, are potential pests throughout South Carolina. Other corn insects are limited in their geographical range. There is the wireworm section located mainly between the Savannah and Santee Rivers; the billbug section in the northern Pee Dee; and the chinch bug section extending across the Piedmont. Stored corn is subject to weevil damage throughout the state. Other insects of minor importance may become locally important. Few, if any states, can report such an array of corn insect enemies with their attendant economic loss.

Various recommendations have proven of value, such as regulating the planting date, rotation, placement of fields with reference to other crops, increase of vigor (through soil building and fertilization) and substitution.

Might not some of the emphasis placed on corn insects during the past years have some bearing on the 1943 crop, the most successful in the history of South Carolina farmers?

Small Grain Diseases

Work on small grain diseases during the year consisted of a survey during the spring and increased attention to treatment of wheat, barley, and oats during fall. The most noticeable difference brought out by the small grain disease survey of 1943 was an increase in the amount of smut on oats; while the loss was small, such increase was viewed by the farmers with alarm.

Such would be expected as the farmers have secured 10 crops of oats without serious damage from smut.

Stored Grain Insects

Some progress has been made in the control of stored grain insects. Tear gas and carbon disulphide are the two materials which have been used.

Winter Cover Crop Insects

Progress was made during the year in controlling the earworm which leaves vetch and travels to other crops. In the Piedmont the 1-1-1 mixture was found effective.

Velvet Bean Caterpillar

Considerable acreage of soybeans was planted during the year. Most of them were not too successful. When the caterpillar appeared the latter part of August, farmers were advised to cut the unpromising beans for hay and thus eliminate the need of dusting and in this way salvage what they could. Moreover, the serious drouths made desirable saving anything that had value as hay.

South of the Savannah River the caterpillar did appear and some of the best fields of beans were protected with Cryolite, and excellent results were secured in several instances.

Victory Garden Pest Control

Many agencies played an important part in the control of pests, especially insects in victory gardens. Use of Kodachrome slides showing insects stages and damage hit a responsive note with victory gardens. These slides were prepared by various entomologists and are assembled and distributed by Mr. M. P. Jones, Entomologist. The three main insect problems, the bean beetle, cabbage worms, and potato bugs, were successfully handled. Practically all of the gardeners secured all the insecticides necessary, though there were times when temporary shortages occurred. Some substitutes of rotenone with Cryolite occurred during the year with rather satisfactory results. Several demonstrations with Cryolite were conducted.

The best response from any information given on nematode control resulted when the following phases of the problem were stressed; Root knot in gardens less harmful to crops in cool parts of the year.

Mouse Control in Melon Fields

Work on mouse control in melon fields was a continuation of work done earlier. The main change in emphasis was purchase of strychnine bait in dry cloth bags rather than having farmers mixing at home.

Pecan Scab

Spraying results again proved effective. Resistant varieties stressed for home planting.

Cottony Cushiony Scale

This widespread pest in the Coastal section is of special interest to garden clubs. Checked where predators were obtainable.

Screwworm

Considerable increases in number of screwworm cases occurred. Stimulated use of pine tar oil and benzol and trial of Smear 62 with good results.

Cattle Louse and Grubs

Laid ground work for cattle grub campaign and promoted the mixing of grub and louse powders by commercial mixers.

Household Insects

Handled a tremendous volume of correspondence relative to household insects.

Mosaic Resistant Sugar Cane

As a result of emphasis on the Better Farm Living Program, sugar cane as a means of producing sirup for home use is staging a big comeback. This project started in 1934 when Mosaic was first diagnosed as the disease affecting sugarcane. This is one project in which county agents delight in participating. They like to show the difference between the old cane and the new cane when planted side by side. The Coker Pedigreed Seed Company at Hartsville again cooperated by distributing thousands of stalks of the CO-290 sugar cane to club boys and adult farmers.

Sweet Potato Disease Control

Perhaps no crop grown in South Carolina is more subject to plant disease losses than sweet potatoes. The interplay of many farm practices is necessary to secure commercial control. This has been the case with most of the commercial growers. All accepted practices were recommended, for example: growers burning sulphur in sweet potato houses were pleased as were those who used borax as a disinfectant. Sweet potato wilt and black rot are ever present obstacles to successful production of this crop; 50% losses from black rot were experienced in some cases and also very serious wilt losses.

Rat Control

Interest in gassing rats still continues. It seems that this useful practice will be adopted in parts of the Coastal section. Quite a few of the county agents have been assisted in securing outfits.

It should be stressed that there is no single method of completely eradicating rats on all farms. Every method should be employed including rat proofing, removal of shelters, use of repellents, use of poisons and gas, trapping, shooting, use of cats and dogs. All these factors were stressed.

Peanut Treating

Twelve machines were operated for shelling peanut seed during the season, and most of these disinfected the seed. Machine shelled seeds have some of their coats cracked and this necessitates treatment. In all cases shelled peanuts resulted in more plants, but in one instance a 3% increase in stand was secured by treatment.

Without shelling, growers of Virginia bunch and thick hulled varieties of peanuts, would find it impossible to secure germination. It is true that Spanish peanuts under moist conditions require shelling less than the thicker varieties, however, during seasons when there is insufficient moisture in the soils shelled Spanish peanuts come up faster. With the shortage of labor, machine shelling was imperative for growers of the thick hulled varieties.

Peach Insects

Considerable time was spent on peach insect problems during the year,

notwithstanding the fact that the major portion of the crop was destroyed by cold. Progress was made in that it was determined that in many of the commercial peach sections that the introduced parasite had become established. The services of Mr. H. E. Blackwell, a Spartanburg Peach grower, were secured in this connection. He collected twigs and rearings were made at the Bureau of Entomology and Plant Quarantine in Moorestown, New Jersey.

The peach tree borer problem was emphasized in the fall by means of news and orchard letters in conjunction with the Extension Horticulturist. All of the peach growing sections were visited to stimulate timely applications which were hampered by labor shortage and difficulty in securing materials.

The problem of cat-fencing of peaches also required some time.

Lesser Cornstalk Borer

Surveyed fields where this insect is causing serious loss of cowpeas, soybeans, and even corn. Aside from early plantings and turning under crop remnants during fall and winter, little is known about control of this insect.

Seed Treatments for South Carolina

Published during the year Circular 233 entitled "Seed Treatments for South Carolina." Pathologists of the South Carolina Experiment Station aided greatly by making recommendations.

Apple Insects

Extension Service has aided apple growers during the year. Most important places where change might be made are in connection with dinitro compounds in dormant spray to control rosy apple aphid in the egg stage. Another place is in the use of oils and nicotine in summer sprays to increase codling moth control.

Beekeeping

County Associations

County associations are organized in twelve counties. These associations meet once amonth, at which time problems of the beekeepers are discussed.

Palmetto State Beekeepers Association

The Palmetto State Beekeepers Association meets twice a year. One meeting is held in Columbia in the spring. The Beekeeper's short course is held at Clemson-but was not held this year. Instead another state meeting was called in Columbia, at which time plans were made for the State Fair exhibits.

State Bee List

We have 1,600 names on our mailing list. Circular letters and notices of meetings are sent out from this office to names on this list. By special request, we have many names from out-of-state beekeepers.

Exhibits at State Fair

Around 19,000 pounds of honey was on exhibit at State Fair this year. This was less than previous year, due to shortage of honey crop.

South Carolinas Beekeeper

A Farmer beekeeper has from five to ten hives. Small beekeepers do not pay much attention to bees, but gathers enough honey for family needs. Much time is spent visiting small beekeepers. I look inside the hives showing him what mistakes he has made and how they may be improved, how requeening is done, etc. Requeening demonstrations are given to show value of introducing queens. This helps the beekeeper to know right procedure to follow when he is ready to requeen.

Beekeepers from Out-of-State

1. Northern beekeepers find it more profitable in most cases to bring their bees South in order to build them up to gathering strength, rather than buy package bees.

A number of beekeepers from New York state are located in Georetown, Horry and Berkeley counties. Bees are brought down in February and stay until the last of April or first of May.

Queen Breeders

1. Twelve queens were received from Agricultural Experiment Station

of Arkansas, Iowa, Wisconsin and Wyoming, in cooperation with the Bureau of Entomology and Plant Quarantine, U. S. D. A., were distributed to queen breeders in the state. These queens were daughters of queens that resist American Foulbrood. They are given a test work in regard to being resistant to American Foulbrood, as we are not yet positive that the daughters or every one will resist it. Queen breeders are depended on for their annual requeening of bees.

Package Bees

South Carolina beekeepers ship from 16 to 20 tons of bees each year. They ship bees for pollination of orchards in the North. Their hives have increased between 2,000 and 3,000.

Summary

Number enterprise demonstration in beekeeping in 1943-----	20
Number transferring demonstrations in 1943-----	46
Number swarms transferred to modern hives in 1943-----	125
Estimated number modern loose frame hives in use	
in state in 1943-----	14,279
Number requeening demonstrations in 1943-----	66
Number Italian queens farmers were assisted in introducing -----	542

FORESTRY

W. J. Barker, Extension Forester
C. W. Hall, Assistant Extension Forester

The forestry personnel with the Extension Service remained unchanged during the year. Complete time was devoted to activities allied with the winning of the war. A special agreement between the Extension Service and the State Commission of Forestry remained in force throughout the year. Two special agreements were signed with industry to foster pulpwood procurement.

A compilation of forestry bulletins was furnished all agent. All counties were visited by the specialists. The demand for forestry assistance from individual landowners was the heaviest on record.

The accomplishments by individual phases of work is shown in brief form below.

(1) Marketing: Sixty-four demonstrations in twenty-five counties were assisted with marketing 12,408,563 board feet of timber worth \$124,085.56. County agents report that 496 farmers were assisted with marketing forest products valued at \$374,452.00.

(2) Woodland Management Records: Fourteen records were returned to this office covering 2,413 acres of farm woodlands reporting a net return of \$3,954.28.

(3) Selective Cutting: In 1943 there were sixty-four selective cutting demonstrations set up in twenty-five counties, where 12,408,563 board feet of sawtimber valued at over \$124,000 and an unestimated number of pulpwood were marked on 5,614 acres for cutting on a selective basis.

County agents reported that they gave assistance to 496 farmers in selective cutting during the past year. According to their reports, they estimated that 4,539 farmers were practicing selective cutting, and that 144 selective cutting demonstrations were held during the year.

(4) Thinning Young Stands: County agents reported that thirty-five demonstrations in timber thinning were given during the year and that 479 farmers were given personal assistance in this work. These agents estimated that 4,718 farmers were practicing timber thinning.

(5) Timber Estimating and Scaling: During the year, 12,408,563 board feet of standing timber was measured for farmers. Sixty-four demonstrations in scaling were established.

County agents reported that sixty-seven demonstrations in timber estimating and scaling were held during the year and that 341 farmers were given personal help.

(6) Forest Protection: A form of State-wide Protection was made possible by an enactment of the Legislature. The county agent is a member of the County Forestry Board in each county.

In the Wartime Fire Prevention Campaign over 400,000 pieces of literature were distributed by the Extension Service. It was estimated by the county agents that 46,963 people were cooperating in fire protection in 1943.

Considerable work was done in the way of correspondence to answer inquiries from individuals concerning disease and insects.

(7) 4-H Activities: Six visits were made by forestry specialists where 437 club members participated in forestry activities. Fourteen counties were represented at these camps. Thirty-three counties were represented at State Conservation Camp at which forestry instructions were given. During 1943, 194 girls and boys were enrolled in regular forestry projects. A special program on Rural Fire Control for 4-H club members was carried out by several counties.

(8) Planting of Trees: In spite of wartime conditions all planting stock available at the nursery was distributed. Agents assisted in placing 4,742,000 seedlings.

The International Paper Company gave South Carolina farmers in thirty-nine counties 1,388,000 trees for reforestation purposes. Distribution of these trees was handled by Extension Service.

The Crown Cork & Seal Company gave South Carolina landowners 13,743 cork oak seedlings. These were distributed throughout the State with seedlings being placed in every county.

Forty-eight farmers in seven counties received 150 Thomas black walnut trees of the thin shell variety. These trees were secured from the Tennessee Valley Authority.

County agents report that 1,579 farmers were assisted in reforestation and that 146 tree planting demonstrations were conducted during the year.

(9) Forestry Extension and War Work:

(a) Naval Stores--Goals were set in each county and county agents gave publicity to the Naval Stores' needs.

(b) Lumber Procurement--Special programs were enacted to assist with the procurement of lumber.

The Extension Service assisted in conducting a special caravan, "Army Salute to Wood" which had four showings in South Carolina and was attended

by 14,000 people.

(c) Pulpwood Procurement-- The Extension Service did an outstanding job in pulpwood procurement in 1943. The program particularly appealed to farmers as they could work it in with their farm schedules and it enabled landowners to give their tenants year around work.

An early start was made and close follow-up was given throughout the year. A Pulpwood Directory was prepared showing specifications of all companies purchasing wood in the State and their producers or contractors.

County agents told of the many requests that they had received from farmers. These amounted to 125 in one county.

A special pulpwood program was put on in Oconee, Newberry, Chester, Edgefield, and Horry.

This program perhaps received as much attention as any single feature in our Extension work during the year. It is estimated that we were responsible for inducing farmers to use farm labor in producing over 2,000 carloads of pulpwood.

(d) Rural Fire Control Program--A Rural Fire Control Program was conducted to acquaint farm people with the principle causes of farm fires and to encourage them to take proper precautions to reduce fire losses. This program was used in each county in the State. 80,000 copies of a special leaflet and 80,000 copies of a check-sheet were distributed in four counties by neighborhood leaders, twenty-two counties by 4-H Clubs, three counties by farm meetings and groups, seven counties by Home Demonstration clubs, and thirteen counties by circular letter. A pledge card was used in some counties and 7,321 people signed and returned the pledge card to the county agents. All together 251,850 pieces of literature were distributed. There were five State-wide news articles and five radio talks on the subject.

Sixteen counties used a special 4-H program prepared by the Extension Forester on "Prevent Fires for Victory".

HORTICULTURE

E. H. Rawl, Extension Horticulturist
A. E. Schilletter, Extension Horticulturist

Program of Work

The extension program of work in Horticulture for 1943 consisted of educational demonstration work in commercial orchards, truck crops, home orchards, and home vegetable gardens.

Commercial Orchardng

We have conducted a very careful survey of the commercial peach plantings in South Carolina. The records which were obtained from 1,395 growers indicate that as of December 1, 1943, there are approximately 5,000,000 (5 million) trees in commercial orchards with only 52 percent of the total of bearing age and 48 percent of non-bearing age. While there are plantings in 27 counties in the state, only 8 counties have plantings in excess of 100,000 trees per county, and these counties are listed in the order of their importance: Spartanburg, York, Greenville, Chesterfield, Cherokee, Saluda, Edgefield, and Laurens. Fifty-one percent of all the trees in the state are planted in Spartanburg County, therefore, it may be seen that the industry is centered around Spartanburg.

With reference to fertilization of peach orchards, the very detailed demonstrations that have been reported in previous reports have been discontinued. However, many simpler demonstrations have been conducted and observed during the past year and while no careful records have been taken as previously, still all of these demonstrations show the necessity of fertilizing with phosphoric acid, potash and limestone, in addition to nitrogen.

The commercial peach industry in South Carolina is truly an Extension project, having a small beginning in 1922, when only a few cars were shipped out of South Carolina. As shown in this report, South Carolina only shipped 16 cars in 1923. From this year on the industry has constantly increased and during the year 1941, it reached the high mark of 7000 cars. A slight frost injury reduced this tonnage to 6000 cars in 1942 and frost again caused practically a total failure in 1943. Most of the growers have given their orchards excellent attention and the crop in 1944 should go close to 9000 cars, provided we have a good year. The following table indicates the progress that has been made in this industry and shows the results of an agricultural enterprise where constant attention and promotion has been devoted to the development of an agricultural crop.

In 1923 only 16 cars of peaches were grown commercially and shipped from South Carolina. As a result of the early commercial plantings and the following years, the car-lot shipments have been as follows:

<u>Year</u>	<u>No. cars shipped</u>			
1923	16			
1924	91			
1925	239			
1926	448			
1927	644			
1928	865			
1929	602			
1930	747			
1931	862			
1932	523			
1933	719			
1934	798			
1935	1362			
1936	2000	(Total cars, including estimated motor truck shipments)		
1937	2000	"	"	"
1938	3000	"	"	"
1939	3500	"	"	"
1940 2/3 of crop killed by frost	4000	"	"	"
1941	7000	"	"	"
1942	6000	"	"	"
1943 95% crop killed by frost	560	"	"	"

South Carolina's peach crop in 1942 was only 7 percent below the bumper crop of 1941. The total production was relatively high because of many new plantings coming into production. The facts indicate that the value of this enterprise was in excess of 5 million dollars. The average farm price was about \$1.50 per bushel as compared to 65 cents for 1941. This industry has grown from its infancy in the early twenties to its present importance and does reflect successful production, standardization and marketing practices. South Carolina in 1942 was the third most important peach producing state in the nation, being exceeded only by California and Georgia. The above figures are given for 1941 and 1942 due to the fact that we had almost a complete failure in 1943.

Peach Orchard Cover Crops: During 1943 approximately all bearing commercial peach orchards were planted to winter cover crops of either Austrian peas, vetch, or rye. Only a small number of records were taken from the orchard cover crop demonstrations. These records, as in the past, point to the desirability of planting orchard cover crops, particularly the winter cover crops. Since the supply of nitrogen is limited under these war conditions, the utilization of leguminous orchard cover crops makes it possible to produce the major portion of the nitrogen requirement. In fact, in some of the best demonstrations the entire nitrogen requirement has been obtained through legume cover crops.

Peach Tree Pruning Demonstrations: The results we are obtaining are well trained and pruned trees capable of producing good yields and quality. There

is room for much improvement. From November 1 until February 1, method demonstrations in pruning are given in all of the commercial peach counties, and as many as eight or ten are given in Spartanburg County alone. These demonstrations are always well attended by the growers.

Monthly Orchard Letters: In the early history of the development of the peach industry when there was only a few dozen of growers involved it was possible for the specialists and county agents to visit almost monthly, and in some cases many times during the month, each of the individual growers.

Now, however, there are approximately 1500 peach growers in South Carolina and it is therefore impossible for the specialists to work with a great number of these growers other than through meetings for the discussion of practices and meetings on pruning, and to a large extent in some of the counties it is likewise impossible for county agents to render individual services. Therefore, we are issuing monthly orchard letters to the peach growers.

Apple and Other Minor Fruits: The following are some extracts from several county agents' reports which tend to show the results accomplished in our commercial apple demonstrations.

Oconee....."Commercial Apple Orchards: Work with commercial apple growers in 1943 consisted of assisting the growers with practically all phases of production and marketing, which includes pruning, spraying for the control of disease and insect pests, fertilizing, winter and summer cover crops and marketing."

Pickens....."There are five commercial orchards in Pickens County with 7360 bearing trees on 90 acres. A summary of three orchard demonstrations is given below."

Summary of Commercial Orchard Demonstrations					
Name	Acres	Trees	Value	Cost	Profit
T. A. Bowen	23	1205 Apple	\$726.50	\$462.36	\$300.14
Faith Clayton	10	580 Apple	600.00	247.00	353.00
Mrs. C. L. Cureton	30	1550 Apple	1400.00	652.47	747.53
TOTALS	63	3335	\$2762.50	\$1361.83	\$1400.67

Spartanburg.."Commercial Apple Production - Work with commercial apple growers in 1943 consisted principally of individual farm visits and interviews with farmers calling at the office. In this way the growers were assisted with their problems in fertilizing, pruning and general cultural practices. Due to the similarity of problems, practically all of the apple growers attended meetings held with peach growers and as a result gained much information of benefit to them.

"Commercial Plantings: There are approximately 30,000 apple trees planted in the county, most of these plantings being made during the period 1920-1925. There have been no commercial plantings recently."

Truck Crops

Cucumbers: Given below is a summary of the cucumber demonstrations in Barnwell County for the year 1943. There were 10 demonstrators, planting a total of 25 acres. The total yield of No. 1's was 2282, and of No. 2's, 1314. Total returns amounted to \$15018.01, with a cost of \$2252.56, leaving a total profit of \$12765.45. The average yield of No. 1's was 91, whereas, the average yield of No. 2's was 53. Average returns were \$600.72, with a cost of \$90.10, and an average profit of \$510.62.

The following table is a summary of cucumber demonstrations in three counties over a period of seven years, giving an average for each county and an average of the three counties.

Summary Cucumber Demonstrations						
County	No. Dems.	Average Yield Per Acre		Returns	Cost	Profit
		No. 1's	No. 2's			
Allendale	5.3	61.4	26.8	\$61.02	\$34.60	\$26.42
Bamberg	18	48.8	26.6	51.19	29.37	21.82
Barnwell	29.4	68.1	35.7	153.51	49.11	104.40

The record work on cucumbers for the past seven years has been summarized and analyzed. During this period, we conducted a total of 369 demonstrations. This gives an average of 59.4 bushels of No. 1's, and 29.7 bushels of No. 2's, with an average return of \$88.57, with a cost of \$37.69. This gives a net profit of \$50.88 for each demonstration.

Cantaloupes: Due to the Government program, the acreage of cantaloupes was reduced from 25 to 35 percent. Our Government listed cantaloupes as one of the non-essential foods. Another reason for this reduction in acreage was due to shortage of labor and uncertainty of transportation facilities.

The variety chiefly planted is Hales Best; strains 45's, 36's, and Jumbo's with Jumbo's and 36's being chiefly planted. The crop is moved mostly by truckers and the truckers want the larger size melons. The monetary value of the cantaloupe crop in 1943 was one of the best in the history of the cantaloupe deal. Many growers received a gross return from \$300 to \$500 per acre, and the yield was only fair, crop being reduced due to dry weather.

Watermelons: The watermelon acreage in 1943 was approximately the same as in 1942. The varieties chiefly planted were Cannon Ball, Dixie Queen, and Tom Watson. The Cannon Ball variety is growing in popularity each year and it is expected to be the leading variety within the next year or two. The Cannon Ball variety is a good yielder, as good cutting qualities, and very good shipping qualities. The Dixie Queen variety is the heaviest yielder and has the best eating qualities, but is only a fair shipper. The Tom Watson, the old reliable, is a light yielder, but has good cutting and shipping qualities.

The yield of the crop as a whole was good in 1943. The monetary value was the highest in the history of the watermelon deal, many cars selling from \$1000 to \$1050. The yield this year ranged from a car to a car and a half, which will give some idea of the acreage value of this crop during the past season. The usual yield, however, is about one-half car per acre.

Sweet Potatoes: No crop in America can produce as much food energy on a well grown acre as sweet potatoes. Sweet potatoes contain 50% more carbohydrates per ton than Irish potatoes. They contain ten times as much carotene and as much Vitamin B and Vitamin C as Irish potatoes. They have as much carotene as carrots, and have a high food value for humans and a higher value as a cattle feed. The sweet potato is an old reliable tested southern crop.

Summary of Sweet Potato Records, 1942

Number of records	66
Total acres	516.65
Average acres per record	7.8
Average total yield, bushels	153.4
Average yield of No. 1's, bushels	91.2
Average amount of plant food per acre:	
Nitrogen, pounds	27
Phosphorus, pounds	65
Potash, pounds	74
Labor requirements per acre:	
Man hours	108
Mule hours	23
Tractor hours	1.33
Total costs per acre:	
Man labor	\$13.29
Mule work	2.56
Tractor work	.87
Truck work	.06
Fertilizer	11.01
Manure	.08
Container cost	20.81
Land rent	5.37
Storage cost	13.66
Plants	7.85
Other costs	3.15
	<u>\$78.70</u>
Average cost per bushel	\$.51
Average returns per acre	213.04
Average net returns per acre	134.34

The following is a summary of the sweet potato production demonstrations conducted in 1943. You will note that 88 demonstrations were conducted.

State Total of 88 Demonstrators

Acres	No. 1's	No. 2's	Culls	Returns	Cost	Profit
606.35	57,829.9	25,939	8,334	\$190,547.51	\$51,605.61	\$138,941.90

State Average Per Acre

No. 1's	No. 2's	Culls	Returns	Cost	Profit
95.4	42.8	13.8	\$314.25	\$85.11	\$229.14

Sweet Potato Boron Demonstrations: During 1943 we made a study of the use of boron on sweet potatoes and the following observations were made.

1. While the statistical evidence on these preliminary demonstrations show no significant differences, smoothness and good color of the potatoes from the borax treated areas was evident on most of the demonstrations.

2. On one particular demonstration, a comparatively high percentage of the potatoes from the untreated area showed protruding surface veins, which materially detracts from the appearance. Only an occasional potato from the borax treated area showed this defect.

3. On three of the demonstrations (F. H. Drew, J. E. Durant and H. Stanley Brown) the vines were heavier and had a darker green color on the borax treated areas. On the other demonstration there was no apparent difference in the appearance of the vines.

4. The total average yields per acre on all plots (1's, 2's, culls and cracks) were as follows:

Check	-154.9 bushels per acre
5 lbs. borax	-162.5 " " "
10 lbs. borax	-187.9 " " "

5. The demonstration on the N. V. Martian farm was located on a sloping field, with the borax treated plots on the higher elevation suffering from lack of moisture during the extremely dry growing season. The check plot was on lower ground and suffered much less from lack of moisture.

6. There was a high percentage of culls on all plots. This was due primarily to adverse weather conditions, extreme drought prevailing generally through the growing season.

Hotbeds: (Fire-heated) During the year we secured records on 43 hotbed demonstrations and the following is a brief summary of the results of these demonstrations.

No. Demonstrators	No. Beds	Bu. Bedded	Total plants Drawn	Average Plants drawn per bu.
43	87	4,382	7,829,805	17,849

Below are six tables, which give summaries of Electric-heated, Manure-heated, and Green Sawdust Heated Hotbeds for 1943.

Electric:

Chesterfield

Name	Size of Bed	Bushels Bedded	Date Bedded	Date 1st plants drawn	No. Plants
Ray Anderson	60x6	50	March 12	April 16	52,000

Florence

Name	Size of Bed	No. Beds	Bushels Bedded	Date Bedded	Date 1st plants drawn	No. Plants
J. T. Lazar	6x60	5	175	March 19	April 19	350,000

Lee

Name	Size of Bed	No. Beds	Bushels Bedded	Date Bedded	Date 1st Pulled	No. Plants
Ralph Bell	25x60	1	200	2/24/43	4/6/43	350,000

Manure:

Lee

Name	No. Beds	Size of Beds	Bushels Bedded	Date Bedded	Date Pulled	No. Plants
M. G. McDowell	1	6'x60'	60	3/1/43	4/16/43	115,000

McCormick

Name	Size of Bed	Bushels Bedded	Date Bedded	Date 1st Plants Drawn	No. Plants
C. E. Wilkie	8'x300'	175	March 15	April 10	270,000

Green Sawdust:

Chester

Name	Size of Bed	Bu. Bedded	Date Bedded	1st Plants	No. Plants
S. S. Abell	5x30	25	April 1	May 15	50,000

Home Orchard Management

Since it is difficult to obtain records, we are giving below, a few extracts from agents' reports, which tend to show the type of work done.

Hampton....."Home Orchard Work - One, 1-acre home orchard was established for E. O. Lightsey at Hampton this year by the county agent. The trees were ordered by him, planted, fertilized, pruned and cultivated under his supervision. Forty-eight peach trees, twelve apples, ten pears, twelve plums, six cherries and twelve grapes were planted.

"The orchard established for R. D. Baker of Yemassee in 1940 was carried through. Only the peach and grapes are bearing.

"The storm damaged many of the trees and approximately 50 percent of them have been lost. A salt spray from the nearby tide water caused them to die.

"The orchard has been carefully pruned and sprayed and treated for borers. Few trees have died from nematode infection.

"The grapes are fine and have borne two profitable crops."

Florence---"Home Orchards - Home orchard work for 1943 consisted of general extension work with farm orchards. The agents furnished all possible information and instructions. Forty-one extension bulletins, "The Farm Orchard," were given to farmers. Also the agents ordered fruit trees cooperatively which resulted in considerable saving for the farmers involved."

Laurens---"Home Orchards - One demonstration in home orchard conducted. The educational work rendered by Extension Service was made up of pruning, fertilizing, harvesting and grading of fruit."

Summary Home Orchard Demonstration

Name	Acres	No. Trees	Value Production	Cost	Profit
S. C. Cook	7	700	\$311.20	\$115.65	\$195.55

McCormick---"Home Orchards - Home orchard work for the year consisted of placing cooperative orders for fruit trees, pruning demonstrations, spraying demonstrations and paradichlorobenzene treating for the peach tree borer.

"Cooperative Orders for Fruit Trees: The County Agent aided farmers in grouping and placing orders for 846 fruit trees, saving several cents per tree for the farmers.

"Pruning Demonstrations: Six pruning demonstrations were given during the year to home orchardists.

"Spraying Demonstrations: Eight home orchardists were advised in following the spray schedule and were assisted in getting the necessary spray materials through a local dealer."

Oconee-----"Home Orchards: As was the case with home gardens, we attempted to promote home orchard work through the Better Farm Living community and neighborhood leaders as well as keeping timely information before the farmers of the county through newspaper statements, mailing out bulletins and circulars and emphasizing the importance of pruning, spraying against disease and insect pests, fertilizing, and thereby increase the production of better quality fruit and also to conserve ample amounts for later use by canning, and preserving. Farmers also assisted in selecting and purchasing desirable varieties of different fruits for developing new orchards or in-

creasing or replacing undesirable trees."

Home Vegetable Gardening

One of our main projects in 1943 was our Victory Gardening Program. The following will give some idea of the type of organization used and the results accomplished.

State Victory Garden Committee appointed by State Agricultural Committee. Program launched January 5 and 6, with a meeting of State Victory Garden Committee and meeting of County Agricultural Extension Force. After the initial meeting, the Victory Garden Committee divided themselves into small working committees. These working committees were as follows:

- Publicity
- Organization of towns and cities
- Organization of farm women
- Organization of farm men
- Organization of Grange
- Organization of Seed Trade
- Organization of 4-H Club
- Organization of schools
- Organization of Negro preachers

The chairman of the Victory Garden Committee was ex office member of each of these committees, in order to coordinate the entire program.

Clemson and Winthrop prepared suitable information to be used by all committees and workers, and thousands of copies of this literature were sent out. To give some idea of their popularity, 125,000 copies of our circular, "More Food Through Victory Gardens," were distributed to farmers, and 50,000 copies of our circular, "A Victory Garden for Every Family," and 150,000 copies of our bulletin, "Victory Gardens," were distributed likewise. Listed below are the circulars and bulletins used in this program.

Bul. 102, "Garden and Truck Crop Insects"	Bul. 103, "Home Canning of Fruits and Vegetables"
Bul. 89, "The Farm Orchard"	
Cir. 175, "Sweet Potatoes for Home Use"	Cir. 183, "Pecan Production"
Cir. 228, "More Food Through Victory Gardens"	Cir. 232, "Better Farm Living and Food for Victory"
Cir. 235, "A Victory Garden for Every Family"	
Cir. 237, "Brining at Home"	Cir. 243, "Home Dehydration"
Cir. 246, "Storage of Home-Produced Foods"	Misc. Pub. 483, "Victory Gardens"

Each leader also received a monthly Garden Letter of instruction.

The Extension Service used their county and community leaders as Victory Garden committeemen in the counties. The State has 46 counties organized, composed of 6280 committeemen, which is a committeeman for every 10 or 20 farmers in South Carolina. Through these committeemen we feel that we contacted over 100,000 farmers.

Another feature of the Extension Program that promoted Victory Gardens

the 75% food and feed production program, in which Victory Gardens was an important part. There were 40,259 farmers who pledged to produce this food. There were 12,950 boys and girls enrolled in the Victory Garden and Better Farm Living Program.

Garden clubs under the leadership of Mrs. George Butler, President, South Carolina Garden Clubs, organized 137 clubs, consisting of 5000 members. Out of this number, 45 percent of these clubs had 100 percent victory gardens and the others a high percent. In addition to gardens, these clubs reported 300,000 quarts of food conserved.

Civilian Defence also played an important part in city and town organizations. There were 135 towns and city communities organized by them.

The AAA committee under the leadership of Mr. Napier, states that \$364,835 was paid out to farmers qualifying in the AAA garden program, and 100,000 farmers participated in these payments. On 60,000 of these farmers, 73,000 gardens were reported in 1943. The reports show that prior to 1943, there were only 27,000 gardens reported.

Mr. Grice of the Farm Security Administration stated that 8,065 of their clients purchased seed packages and reported on their Victory Gardens.

All of the reading clerks of the Grange received the garden letter and had for their library, a complete set of the garden literature.

The Seed Trade reports a 52 percent increase in seed sales, and recommended bulletin boards in seed stores with garden literature displayed on them for use of their customers.

Negro work --we worked with 150 Negro churches with a membership of 26,761 who used the victory garden as a part of their church program.

The committee on publicity in cooperation with the horticulture department, prepared and sent to all daily newspapers, daily articles on victory gardening, which were very popular and widely used. We also prepared special feature articles for certain newspapers and sent out two or three other articles for use by daily papers and weekly papers. We also used the radio to the fullest extent. Practically every radio station in South Carolina broadcast daily statements about Victory Gardening and what to plant and what to do in the garden.

The following are the total estimated accomplishments of this program:

- 112,800 farm gardens
- 269,500 town gardens
- 25 million containers, mostly quarts, of food were conserved and
- 435,385 pounds in community storage lockers
- 6,596 pounds in farm freezers
- 108,944 pounds and 29,520 pounds of fruit were dehydrated
- 13,425,967 pounds of potatoes, apples and root crops were stored in bulk
- 280,802 gallons of vegetables were brined and salted

Many county, community, and state wide meetings were held by home agents, farm agents, and Extension Horticulturist. Another feature of our program was field patches of vegetables, and a check-up showed 9 out of 10 farmers had gardens visible from the road.

Our program, of course, featured the growing and use of green leafy, and yellow vegetables.

In cooperation with 4-H club leaders, we had 155 garden demonstrations that produced \$7514.49 worth of food. There were 89 sweet potato demonstrations producing \$7601.20 worth of food.

Boys' Club Work

In connection with this project, the Horticultural Specialists cooperate and assist the 4-H club specialists in the program. We appreciate the importance of this activity and cooperated, when possible, with the 4-H club boys' division as far as possible.

We have records from 4-H club members who participated in three horticultural demonstrations, namely, sweet potato, Irish potato, and gardens. A summary of each is given below.

There were 89 demonstrations conducted on sweet potatoes, with a total number of acres, 48.4; bushels yielded, 4411; total value, \$7601.20; total cost, \$2784.10; and a total profit of \$4817.10. Taking an average per demonstration gives .5 acres, 49.6 bushels yielded, with a value of \$85.40, cost of \$31.28, and a profit of \$54.12.

There were 6 demonstrations conducted on sweet potatoes with a total of 5.8 acres; bushels yielded, 645; total value of \$1266.50, cost of \$480.40, giving a profit of \$676.10. An average per demonstration gives .9 acres, 107 bushels yielded a value of \$211.08, with a cost of \$80.67, leaving a profit of \$131.01.

There were 155 garden demonstrations conducted with a total of 102.7 acres, a total value of \$7514.49, a cost of \$2815.39, and a profit of \$4699.10. An average per demonstration gives .7 acres, with a value of \$48.48, a cost of \$18.16, and leaves a profit of \$30.32.

LIVESTOCK

J. R. Hawkins, Extension Specialist in Charge
A. L. DuRant, Extension Livestock Specialist

Program of Work

The following lines of work received major consideration in the 1943 program of the Extension Livestock Division:

1. Greater use of grazing crops and forage, particularly those crops which the animals can harvest for themselves. Improvement of established permanent pastures and seeding of new ones.
2. More economical use of grain and protein supplements in livestock feedings.
3. Reduction of losses from cattle and hog lice, cattle grubs, intestinal parasites, hog cholera, bangs disease, bruises and injuries in shipping, losses of pigs at farrowing time.
4. Culling of herds with better care and feeding for remainder.
5. Use of better herd sires.
6. Adopting better herd management practices so that a market topping product can be sold from the herd at a time and season of the year when it will be favorably received by the buying public.
7. Orderly marketing to avoid market gluts.

Breeding Hogs Placed

The livestock specialist and county agents have assisted these farmers in obtaining this goal by placing purebred boars and purebred and grade sows with individual farmers and by assisting with purebred hog sales. Under "Better Farm Living" program brood sows and feeder pigs were placed on farms for home use. These farmers were urged to produce enough hogs to supply the needs of the farm family and the tenants on that farm.

A summary of the county agents reports shows that 316 purebred boars and 894 purebred and grade sows were placed with farmers during 1943. A record of the total number of hogs placed in recent years shows that 1,513 purebred boars were placed to date on farms.

Hog Feeding Demonstrations

In order to determine the price under present conditions that farmers can market their grains through hogs, the hog feeding demonstrations were continued during the year. These hog feeding demonstrations using hard pork producing feeds were started in this state in 1926 and has been one of the most important factors in putting hogs on a firm basis.

Complete records are kept on the weight of the hogs and the feed consumed during these demonstrations. The hogs are weighed at the beginning and at the close of the feeding period and accurate records are kept of the feed consumed during this time. Where corn or other grain are hogged down estimates are made of the yield. Corn, barley, wheat and oats are the chief grain used. The protein supplement consists of what protein feeds the farmer could secure. Commercial hog supplements are used in some cases. Where tankage or fish meal could be purchased, the farmers mixed this animal protein with cotton-seed meal and soybean meal in equal proportions. Where fences are available most of the hog men graze their hogs on oats, barley, or rape in the winter and spring months and on green soybeans, pearl millet or lespedeza during the summer and fall. These grazing crops saved considerable grain and protein supplement during this time of scarcity and high priced feeds.

The county agents reports show that 34 hog feeding demonstrations were completed during the year. On five records which have been analyzed, the figures show that the hogs gained 1.54 pounds per pig per day, using 8 bushels of grain and 23.5 pounds of supplement per 100 pounds gain. The cost was \$8.85 per 100 pounds for the grain during this period and the return of \$1.77 per bushel of grain. Feeder pigs sold for a low price in our state during most of the year and if the value of the hogs were taken at the beginning and the close of the feeding period, the return for feed would be much higher. Some feeder pigs sold as low as \$7.00 and \$8.00 a hundred and the support price of \$13.40 for top hogs for South Carolina would make a good margin on feeding out hogs to top weights.

Swine Management

Seven swine management demonstrations were conducted during the year. Two of these demonstrations from Charleston County follow:

Name	No. Pigs Farrowed	No. Raised	Weight at 8 weeks	Weight at 7 months
Geo. H. Resch	112	98	39	-
E. L. Gatch	15	14	40.5	277
Total (16 litters)	127	112	79.5	277
Average	8	7	40	277

An average of 8 pigs were farrowed and 7 pigs per litter were raised. The litter that was grown out averaged 277 pounds per pig at 7 months old. This liberal feeding, rapid growth and sanitary measures reduces the infestation from kidney worms, round worms and other internal parasites to a minimum.

Hog Sales

The first cooperative hog shipping association was organized in 1937 and we now have 17 of these associations in the state. These associations are

farmer owned and farmer controlled and are governed by a board of directors that are hog producers and are elected at their annual meetings. The actual business is conducted by an executive committee of three farmers selected from the directors.

The railroads, the Atlantic Coast Line, the Seaboard, and the Southern have cooperated with these associations in remodeling and building sock pens to meet their needs. Double deck loading chutes have been built to accommodate double deck cars.

The sales are held on certain days every week at the larger associations, and as often as a truck or car load can be assembled at the small associations. These hogs are weighed and graded by competent graders according to the U. S. Standard grades, based upon the weight, finish and quality of the hogs. Bids are received from the packers and other buyers and the hogs are sold f.o.b. to the highest bidders. These associations are serving the farmers in the war program by providing an outlet direct to the packers for their hogs.

Total hog sales as reported by the county agents amounted to 76,059 head which brought a return to farmers of \$2,075,583.

Fat Cattle Shows and Sales

Shows and sales of 4-H F.F.A. and farmer's cattle were held as usual at Augusta, Anderson, Florence, Orangeburg, and Walterboro and, in addition, a show and sale of fat cattle was held at Fountain Inn. While the number cattle owned and shown by adults was in many cases below former years, the number and quality of cattle shown in the junior classes was about the same as last year.

Following is a summary of the sales where club members from this state participated:

	<u>No.</u> <u>Head</u>	<u>Total</u> <u>Weight</u>	<u>Average</u> <u>Price</u>	<u>Total</u> <u>Sales</u>
Walterboro	29	22,685	\$17.81	\$4,040.36
Agusta, Ga.	206	175,440	17.41	30,552.29
Orangeburg	103	74,605	15.94	11,911.28
Fountain Inn	101	57,825	15.71	9,704.45
Florence	123	83,351	15.59	13,072.24
Anderson	138	100,125	15.55	15,611.96
Total	700	514,331	\$16.56	\$84,895.58

Feeder Calf Sales

Auction sales of feeder calves were held at Winnsboro, White Hall, Augusta, Ga. and Greenwood. The Fairfield county sale at Winnsboro, which followed the 4-H calf club show on September 30, was held October 1 at the

community sale barn. This sale is confined to Fairfield county breeders and 4-H club members and is handled by a local committee under the guidance of the county agent and with the help of some members of the Extension Service and other agencies. In addition to the 22 head of 4-H calves, 136 calves and yearling cattle were sold for producers in the county. The total amount of money received for cattle in this sale was \$22,540.81. Although cattle prices generally were on the decline, the sale was brisk with plenty of buying power on hand to take all the cattle offered at satisfactory figures. The best end of the well bred heavy calves brought from \$13.75 to \$15.00 per cwt., with plainer kinds on down according to quality and finish. The 4-H grand champion brought 25¢ per pound and the reserve champion .2175.

Sales of Registered Cattle

Assistance was given the South Carolina Hereford Breeders Association, the Edgefield County Hereford Breeders, The South Carolina Milking Shorthorn Breeders Association, and private breeders in selling breeding stock.

MARKETING

T. A. Cole, Chief, Extension Division of Markets
J. E. Youngblood, Assistant Marketing Specialist
W. A. Tuten, Assistant Marketing Specialist
J. B. Owens, Assistant Marketing Specialist
L. M. Asbill, Assistant Marketing Specialist
B. S. Rich, Assistant Marketing Specialist

The Extension Marketing Program for 1943 included assistance to cooperative associations, standardization work with fruits and vegetables, egg and poultry sales, marketing dairy products and livestock, supervision of Federal-State shipping point inspection service, and miscellaneous marketing.

Wartime Marketing Program

Interest in marketing work is increasing over the entire state. Formerly counties growing either fruits or vegetables commercially required more assistance than those growing general farm crops but in 1943 owing to the Extension egg marketing program, help to these counties almost equaled those to counties producing fruits and vegetables commercially.

More calls for assistance came from counties where new sections were starting commercial production of sweet potatoes. Owing to production goals set up and also from being urged to grow more food crops, farmers planted crops with which they were unfamiliar, and which did not fit into any organized marketing schedule. This multiplied marketing problems and required additional assistance. In some instances the Extension Service could render the needed assistance. In other cases very little assistance could be given on account of lack of volume, quality, facilities and, also, harvesting date. Some growers produced new crops intending to market them to the army, not knowing that army requirements as to quality, grade and pack were the same as those for the commercial market. This resulted in many emergency calls for assistance, all of which were answered and such assistance given as could be under the circumstances.

Cooperative Associations: As an indication of the interest that has been shown in cooperative work during the past years, it would be well to bring out here the fact that there are over one hundred and forty cooperative associations incorporated under our state laws in South Carolina. In this list are included marketing cooperatives, purchasing cooperatives, cooperatives for both purchasing and marketing and service cooperatives. A majority of these cooperatives are either inactive or operate seasonally and do not own any physical equipment nor employ a manager. Those cooperatives which market products grown in volume more or less concentrated, and those selling supplies to farmers seem to be more prosperous and are growing.

To assist grower cooperatives, the Extension Division of Markets has maintained in its personnel men with marketing experience and there are few marketing cooperatives in the Atlantic Seaboard States from Florida to New York that some member of this Division has not worked with on their standardization and marketing problems. Also, to encourage and assist cooperative associations

the Director of Extension has appointed an Extension Marketing Committee composed of five production men and one marketing man to investigate cooperatives and make recommendations.

Shipping Point Inspection: Since there seems to be some misunderstanding as to just what part this service plays in marketing of farm products and how it fits into an educational program, it might be well to clarify a few points. This service was set up during World War No. 1 to certify to grades of produce being bought by the government. It was found to have merit and was introduced in a small way to the commercial trade shortly after the war. Strictly as an inspection and certifying service it was not popular with growers at all and was none too popular with many shippers. However, as time went along and better training and more training were given inspectors and as these inspectors made suggestions as to grading and packing, the service gained in its usefulness. Today the grower does not look upon an inspector as a policeman checking on him and his product but as an expert who can help him train his help, arrange his packing house to save labor and be more efficient, advise him in regard to equipment, harvesting, grading, packing, refrigeration, loading cars to meet railroad requirements, how to handle rejections, complaints, elimination of storage and transit delays and many other problems. In addition, he does certify to the quality and gives the grower ample proof that he is delivering quality claimed. The greater part of his work is strictly educational. The manager of a cooperative which sells more cars of farm products than any organization in the state made the statement that the assistance given his growers in their harvesting, grading, packing, etc. by the inspector was of more importance than the certification, and he uses shipping point inspection on all commodities handled. This educational program is financed by fees collected from growers and shippers, except part of the supervision which is financed by the Extension Service.

Shipping point inspection is not so important when there is an extreme scarcity of a commodity such as we had with Irish potatoes and watermelons this year, when the buyer was right on the ground with the seller. That is shown in the number of cars inspected this year - 1,155 cars as compared to 8,205 last year. This year we did not need new markets and wide distribution as we did last year. They could not supply the buyers who were waving the money. The following record from last year, with crops and demands about normal, will illustrate the correlation between inspection and distribution:

Percent of watermelon shipments inspected - 10% Sold in 8 states.

Percent of potatoes inspected - 75% Sold in 22 states.

Percent of peach shipments inspected - 95% Sold in 36 states.

These were F.O.B. sales, mostly by wire, to be shipped to the number of states as indicated. While we only inspected about 15% as many cars as inspected last year, these inspections covered a wide range of commodities and in many different counties.

Inspections were made on the following commodities: Asparagus, peaches, Irish potatoes, sweet potatoes, beets, cucumbers, lettuce, rutabagas, snap beans, spinach, strawberries, tomatoes, watermelons, and also poultry and eggs. This universal demand for inspection was in order to make F.O.B. sales, for protection on high-priced products, and to be able to sell to the Army Quartermaster Market Center.

Owing to a crop failure on peaches, only two field offices for inspection were maintained this year - Charleston and Allendale - and only one branch office at Monetta. This also accounted for the fact that there were very few new inspectors to train. Figures show a gain in cars of sweet potato inspections - 80 cars this year as compared to 60 cars last year. This was brought about by out-of-state buyers wanting South Carolina sweet potatoes and were willing to pay good money for them but wanted to be sure they were being shipped the quality they had purchased, and by growers shipping high-priced sweet potatoes wanting to have proof that they had shipped the quality that their contract called for. The Extension Service was able to take care of every request we received for inspection. Some of this work was done by inspectors employed by the Division of Markets and paid out of inspection funds, but owing to the fact that most of the grading and packing was being done by untrained help, the inspectors had to supervise the grading. These cars were scattered over a wide territory and over several months time. This made it impractical to use these inspectors on all this work so a considerable amount of it was done by personnel of the Division.

This was the second year in shipping point inspection of eggs. As was experienced in starting standardization of fruits and vegetables, Extension workers are having to overcome the desire to follow old practices and resistance against new methods. We find just as much of this opposition in our own organization as we find with growers and handlers. We may not have made much progress but we have at least made a start, and we feel that we are making as much progress with egg standardization as we did with other products the first two or three years. We will soon find that the only way to meet standardized competition is with a standardized product. We had some increase on inspection of poultry but we do not have a large amount of dressed poultry shipped from the state.

Receiving Point Inspection: Ceiling prices, as well as high prices, have forced receivers to ask shippers for adjustments on cars of fruits and vegetables arriving in bad condition as they are not able to pass this loss on to the consumer. Many of these receivers are unable to get an equitable adjustment unless they can furnish a government inspection showing per cent of damaged produce and, also, nature of damage and when and where damage occurred. This enables shipper and receiver to place responsibility for loss. This has resulted in quite an increase in this type of work under present conditions. This work has also resulted in a great saving for the distributors and consumers of fruits and vegetables in the state.

Army Buying: The Division of Markets has worked very closely with the Quartermaster Market Center in locating commodities in the state which they are buying for Fort Jackson, Columbia Air Base, Congaree Air Base, Camp Croft, Camp Gordon, Camp Sutton and a few other camps. We have furnished inspection on all commodities grown in the state commercially and assisted growers to sell many car and truck loads of farm produce to the army without any inconvenience or rejections at time of delivery.

Quality Sweet Potato Program: This joint production and marketing program has proven very popular with growers and handlers of sweet potatoes in South Carolina. The program was started at a very opportune time and the increase in sweet potato acreage in the state is sufficient proof of satisfactory prices. The increasing sales to consuming centers and great demand from other states for seed stock is proof of improved quality. As to what can be done by a coordinated production and marketing program on a crop that we have natural advantages with is amply demonstrated by this sweet potato program.

Certain fundamental principles have been strictly adhered to in this program. While there has been frequent and lengthy conferences between production and marketing specialists on the program, discussing all features in an effort to improve the program and improve recommended practices, what these recommendations should be, has been left entirely with the responsible division. This has resulted in complete harmony and kept recommendations in line with latest and best information. The results have been that as quality improved sweet potatoes improved and as prices improved, more sweet potatoes were grown, and as quality and volume improved, we were able to induce more buyers to come in. This has given buying competition and a very healthy situation.

Prices of quality sweet potatoes in 1943 reached the highest peak that they have reached since World War No. 1. Some sweet potatoes in late spring sold as high as six dollars per bushel F.O.B. shipping point. Prices of sweet potatoes generally were higher than in 1942. However, prices last year were high enough to cause a decided increase in commercial acreage this year. Shipments in 1943 will not reflect this increase accurately as most of the crop went into storage to be shipped during winter and spring of 1944.

One striking feature about the great progress that has been made in making sweet potatoes an important cash crop in South Carolina is the fact that this progress has been made during a period in which sweet potato prices as a whole have been relatively low as compared to previous years and other commodities. The answer to this is quality sweet potatoes produced and marketed under this program have sold far above the general price of ordinary sweet potatoes. We have growers who averaged \$2.75 per bushel for all of their sweet potato crop this year while many growers sold their sweet potato crop for \$1.15 per bushel. The same information was available to both groups of growers. The difference in these two groups of growers was one group used the information, the other did not. The first group is the one that has made this program a success and made money. The latter is the one that always says that they would grow this or that if they had a market.

Poultry and Egg Sales: The Extension Service continued our policy of marketing poultry and eggs through cooperative sales. In response to the government's request to increase production of poultry and eggs the growers in this state increased their poultry on the farms and, in addition, many broilers were grown out in small towns. As had been anticipated, the usual price slump on eggs started in late winter. To prevent a complete collapse of the egg market arrangements were made with a large handler of eggs to run a truck schedule through the state and buy surplus eggs that could not be handled through the government contract buyers.

The Division of Markets, through county and home agents and local merchants, assembled the eggs at certain points and arranged schedules for the buyers' truck. We also furnished inspection for the two points doing purchasing for the F.D.A.

This egg marketing program was very successful and resulted in keeping the farm price on eggs generally above 25¢ per dozen and in most cases around 30¢ per dozen.

Very little poultry was shipped out of the state this year. There are two factors which we can contribute this to. One is the great demand in the state for poultry products caused by meat rationing since poultry is unrationed. The other factor, having a decided influence, was the stabilizing of egg prices during the usual seasonal slump. In former years when egg prices went below 20¢ we had calls to move poultry and move poultry we did. This year, as last year with fairly reasonable egg prices during the heavy producing season, producers were not so anxious to sell their hens. It seems conclusive from the experience of former years and experience of this year and last year that we must relieve the seasonal price slump in egg prices if we are to build up our poultry population in South Carolina.

Standardization Projects: Standardization is so closely associated with inspection that for all practical purposes they could be considered under the same heading. The army requirement that all fruits and vegetables bought must meet certain grade requirements has caused more interest to be taken by growers and handlers in standardization work. Also, outside buying interests are buying on a grade basis F.O.B. shipping point. With a shortage of personnel in the Division this year we have maintained a tradition that no grower or shipper in South Carolina lose an F.O.B. sale on account of not being able to get assistance to grade out, pack, and load a standardized product.

Egg grading and candling schools were held this year in training graders for local buying stations and in training personnel to be used as inspectors. Demonstrations were also held in poultry grading and solid cars of graded and inspected turkeys were shipped out of the state.

It is felt that more progress has been made this year on standardizing poultry and eggs than ever before in the state. Lack of volume in both poultry and egg production has held back standardization on these products.

The policy was maintained as near as possible of securing inspectors who could advise the growers in regards to proper stages of maturity methods of harvesting and give demonstrations in grading, packing and loading into cars. Proper loading so as to get ventilation and proper refrigeration in transit is a very important item in marketing.

Most of these men used on inspection and standardization do inspection work as a profession and work in different states under all conditions and are able to give growers and shippers valuable information on all phases of standardization. The Extension Service furnished trained standardization men for the Charleston County Market, handling various vegetables, and the

Lake City Auction Market, handling green peas, snap beans, lima beans and cucumbers. We also furnished standardization men for the cannery at Johnston. There were few certificates written on this type of work and it would not be reported under cars inspected.

These daily demonstrations given by these inspectors on standardization is by far the best way to get this type of educational work over to the growers. It is by far more effective than individual visiting and group meeting at seasons, when this work is going on. Proof of the wisdom of this practice is demonstrated by the quality of peaches being shipped from South Carolina. It is believed that in practically all farm products, proper harvesting, grading, packing and loading on cars is three-fourths of marketing.

Market News Service - Market Letter: The cooperative project between the Extension Service and the Fruit and Vegetable Division, Agricultural Department, was continued through which marketing news reports were issued from our Charleston office during the snap bean, Irish potato, cucumber and tomato marketing seasons, these daily market reports carrying information on these commodities. The Market News Service on cantaloupes and watermelons was operated at Allendale during the marketing season. The asparagus growers were served by the Atlanta office, War Food Administration, which issued a special report on asparagus during the shipping season. The peach growers were served by the Hamlet, N. C., office which issued daily reports on peaches during the harvesting season. The Atlanta office was furnished reports daily by our office on the movement of asparagus by truck from this state, and Hamlet office in regard to peaches. The asparagus and peach growers and shippers advised that this report on truck movement was of value to them and should be continued.

On account of very few listings by county agents, our market letter was only issued occasionally during the year. Some of the information, which would ordinarily be carried in this letter, was gotten out through the War Letter issued at Clemson.

Owing to requests to reduce travel, the list of motor truck operators was not revised this year as completely as in former years. However, many operators were contacted by mail which resulted in a fair list of active operators. Many truck operators had gone out of business and were going out every day, so, a list one month would be out-of-date the next.

Auction Markets: The vegetable auction markets at Lake City, Charleston and the strawberry auction at Loris operated again this year. Inspectors were furnished on all of these markets. The general comment of growers was that under the inspection system of marketing, growers were paid according to the quality of produce they delivered. They also felt that the inspections gave the buyers more confidence in the products they were buying and resulted in better prices to growers. These auction markets are rendering a great service to small growers producing less than car lot quantities. This holds true for all strawberry growers and most bean and cucumber growers.

The livestock auction markets continued to operate in 1943 and most of them reported an increase in business. As animals are sold strictly on their apparent merit with no guarantee of satisfaction, there is very little that the Division of Markets can do in assisting with these markets.

The A.A.A. Programs: In carrying out the government price support programs in the state this year there were only three commodities which the government had to do any purchasing. These commodities were peanuts, potatoes and eggs.

The G.F.A. Peanut Association of Camilla, Ga., handled the government buying program on peanuts in the Southern part of the state and the Growers' Cooperative Inc. of Franklin, Va., handled the program in the northern part of the state. The prices this year were according to grade and were very satisfactory to those growers getting fair yields. Elimination of quotas for peanuts did much to smooth out many difficulties encountered last year. Our part in this deal was only in an advisory capacity.

The regular commercial producing sections of the state had finished marketing their potatoes before prices declined below the government support price. There were a few cars grown outside of these areas which matured late and had to be sold to the W.F.A. We did all we could to get these graded so that growers would receive top support prices but yields were low with resulting poor quality and growers would not grade them. This resulted in returns far below production costs and badly disappointed growers. We furnished inspection for all cars bought.

Most of the eggs were handled without resorting to selling to the W.F.A. but two receiving stations were operated and we gave grading demonstrations at these stations and furnished inspection.

Miscellaneous Marketing and Purchasing: Owing to gasoline shortage for itinerant trucking and priorities on purchasing of new trucks, most of our truck operators have turned to other lines of endeavor. This made it hardly worthwhile to try to renew our list of truck buyers. We have kept a small list of those permanent buyers who can be called on from time to time when sufficient volume is available to make it interesting to them.

From time to time information is included in the market letter or in circular letters which are sent out to interested parties which carries information on changing conditions in competing sections, changes in consumer demands, and recommended changes in packing. The market letter carries information which keeps our workers informed as to the prices of our principal farm crops as well as surpluses available in other counties.

Cooperation with other Divisions: Our work is being conducted on the basis of a coordinated production and marketing program, and the production specialists of the other Divisions concerned have cooperated fully with us in carrying out our program. The Extension Service worked very closely with the Cooperative Research and Service Division, Farm Credit Administration and the legal counsel of the Columbia Bank for Cooperatives in advising with and furnishing information to cooperative associations in this state. Therefore, we have been able to assist our cooperatives in their financial, membership relations and operating problems as well as in preparing their organization papers.

Summary Marketing Work Done by Extension Service in 1943

Item	Amount	Value Sold	Value Bought	Farmers Served
Hogs, Meat.....	76,059 head.....	\$2,075,583...	\$ 3,322...	10,340
Hogs, Breeding.....	902 head.....	8,926...	15,092...	604
Beef Cattle, Meat.....	3,659 head.....	250,722...	20,145...	515
Beef Cattle, Breeding...	1,424 head.....	105,393...	82,264...	323
Poultry, Turkeys.....	1,050,685 lbs.....	295,568...	.....	10,182
Eggs.....	536,757 doz.....	202,497...	.....	7,735
Dairy Cattle.....	1,238 head.....	126,555...	73,127...	749
Milk.....	12,922,886 lbs.....	464,586...	.....	1,117
Cream.....	177,191 lbs.....	81,711...	.....	924
Baby Chicks.....	61,880 #.....	400...	7,790...	247
Sweet Potatoes.....	122,109 bu.....	376,955...	.....	1,826
Irish Potatoes.....	39,093 bu.....	74,064...	.....	172
Fruit Crops.....	17,850 bu.....	83,290...	.....	38
Corn, Feed.....	61,470 bu.....	40,577...	42,182...	1,711
Corn, Seed.....	366 bu.....	395...	961...	220
Cottonseed.....	1,370 tons.....	26,150...	34,480...	2,030
Wheat.....	449,502 bu.....	22,111...	471,422...	3,717
Oats.....	43,873 bu.....	38,009...	12,543...	879
Rye.....	12,509 bu.....	12,980...	316...	66
Barley.....	4,953 bu.....	6,047...	2,281...	275
Peanuts.....	894 tons.....	88,126...	7,468...	1,480
Soy Beans.....	14,267 bu.....	4,624...	45,363...	1,429
Cow Peas.....	8,074 bu.....	21,646...	2,792...	730
Crotalaria.....	101,602 lbs.....	7,510...	817...	119
Sweet Potato Plants.....	8,455,250 plants.....	18,628...	10,600...	550
Sugar Cane.....	114,025 stalks.....	8,226...	420...	353
Hay.....	4,376 tons.....	63,020...	31,700...	248
Vetch Seed.....	153,850 lbs.....	.....	18,399...	1,057
Austrian Pea Seed.....	501,600 lbs.....	.....	37,218...	2,750
Lespedeza Seed.....	555,309 lbs.....	33,254...	28,744...	1,767
Clover, Seed.....	14,500 lbs.....	851...	1,330...	154
Kudzu Crowns.....	244,800 crowns.....	267...	1,012...	62
Pecans.....	242,859 lbs.....	45,818...	1,339...	505
Misc. Seeds.....	67,076 lbs.....	1,862...	8,673...	630
Misc. Plants.....	21,068 plants.....	.....	219...	35
Nursery Stock.....	9,060 trees.....	.....	3,287...	732
Forest Products.....	.....	124,172...	.....	276
Farm Mach. Equip.....	162 units.....	4,642...	79,138...	189
Molasses.....	51,679 gal.....	.....	15,190...	1,561
Calcium Arsenate.....	29,160 lbs.....	.....	3,696...	1,379
Insecticides, Misc.....	7,681 lbs.....	.....	1,890...	1,112
Containers.....	33,196 #.....	.....	7,378...	389
Protein Sup.....	462,500 lbs.....	.....	16,038...	284
Feed.....	563,850 lbs.....	.....	33,889...	849
Forest Seedlings.....	533,561 #.....	.....	1,708...	192
Miscellaneous.....	.....	29,995...	35,930...	1,027
Home Dem. Club Markets..	.....	283,250...	2,135...	1,010
Marketing by Negro Agents	.....	48,079...	7,538...	1,210
Totals.....	.....	\$5,076,489...	1,160,016...	65,749
Total value products bought and sold.....	.....	\$6,236,505...	.....	.....
Value of 1,155 cars fruits and vegetables receiving shipping point inspection under supervision of Extension Service.....	.....	\$1,305,127...	.....	.....
Total value of products Extension Service assisted in marketing.....	.....	\$7,541,632...	.....	.....

Commodities and Number Cars

Inspected and Certificates Issued - 1943#

(Exclusive of Auction Market line inspections)

COMMODITY -	JAN.*MAR.*	APRIL	MAY	JUNE	JULY	AUG.	SEPT.-DEC.	TOTAL
Asparagus		4	7					11
Broccoli	2							2
Cabbage			3				19	22
Cucumbers				2				2
Irish Potatoes			22	212	5			239
Peaches				34	346	4		384
Snap Beans			4	26				30
Sweet Potatoes	5	2					73	80
Tomatoes				13				13
Watermelons				23	297	3		323
Totals	7	6	36	310	648	7	92	1106
1942	44	120	1326	1574	2681	2451	9	8205
1941	13	104	678	1597	3782	2813	49	9036
1940	48	117	1483	1520	2417	3084	52	8671
1939	68	105	1921	767	4692	621	98	8272
1938	69	408	1752	1010	3506	3	32	6780
1937	12	160	1254	1848	3866	467	38	7145
1936	0	138	1374	670	4179	753	159	7273
1935	0	292	1311	748	3828	109	0	6288
1934	0	248	1290	785	143	644	0	3155
1933	0	280	1147	35	470	1	0	1933
1932	0	270	769	165	59	335	0	1598
1931	0	370	1690	1131	110	377	0	3678
1930	0	426	1777	426	452	142	0	3223
1929	0	401	1638	50	289	79	0	2457
1928	0	297	507	1132	231	342	0	2509

1. *Prior to 1936 few inspections made during March but included in April total.
2. #Totals for years prior to 1939 include inspections made on Auction Markets but no certificates issued.

POULTRY

P. H. Gooding, Extension Poultryman

E. A. Peterkin, Assistant Extension Poultryman

Program of Work

The extension poultry program of work for 1943 included demonstration poultry flocks, grow healthy chicks, demonstrations, turkey production, demonstrations, disease and parasite control, poultry improvement and record of performance work, 4-H club poultry projects, and poultry production as selected to the Better Farm Living Program.

Progress of the Poultry Industry in South Carolina

There has been a marked increase in the poultry production of South Carolina during 1943. This has come about partly because of the governments request for an increase in eggs for war needs. This increase has not caused an extraordinary adjustment in agriculture. It has come about by adding on a few more chickens to each flock and by better feeding practices. This increase represents the direction that the industry has been moving in for several years and does not begin to take South Carolina out of a deficit egg producing state.

Probably the biggest improvement made by the poultry industry of South Carolina in the past few years is in the quality of breeding stock. There are now 24 chicken and 2 turkey hatcheries complying with the requirements of the National Poultry Improvement Plan. Ten of these hatcheries are complying with the third breeding stage which is U. S. Certified. These hatcheries are using about 3,000 pedigreed male birds in their supply flocks. These hatcheries are also complying with the second and third disease stages of the National Poultry Improvement Plan. This means that chicks sold are generally freer of pullorum disease.

There are now eleven record of performance breeders in the state producing pedigreed breeding stock. These R. O. P. breeders supply an adequate source of good breeding stock and as this breeding stock finds its way into the hatchery supply the quality of chicks sold by all hatcheries will be greatly improved. The following table shows how the Poultry industry has grown:

Table Showing Growth of Poultry Industry In South Carolina

Year	Chickens on Farm January 1	Incubating Capacity
1915	2,694,970	(no commercial)
1930	3,057,137	522,798
1939	4,711,000	1,896,212
1943	5,476,000	2,006,202
1944	5,756,000	

The Poultry industry in South Carolina is made up primarily of small farm flocks. However, several hundred farms have 1,000 or more birds each. Chickens are kept on 88 percent of the farms, and poultry is represented on more farms than any other enterprise except corn. Poultry has grown from a \$5,000,000 industry in 1915 to one of over \$15,000,000 in 1943.

Demonstration Record Flocks

It is felt that demonstration records offer one of the best mediums of promoting a sound poultry industry and teaching the best practices to follow in raising chickens. These records reveal a clear picture to a farmer as to what income may be expected from the poultry flock and also show him how hens respond to the right kind of feed and management. Once it is proven that chickens are a good investment, increased interest in the industry will naturally follow.

Summary of Demonstration Poultry Flock Records				
Number of Records	Average Number of Chickens Per Farm	Average Total Income Per Farm	Average Labor Income Per Farm	Average Labor Income Per Hen
34	161.5	1080.25	417.29	2.88

Grow Healthy Chicks

One of the greatest menaces to poultry keeping is adult mortality. Poultrymen in general do a fair job of brooding in that they raise a high percentage of chicks brooded, but so often these chicks do not make good layers. They go to pieces about the time they start into egg production. It is believed that demonstrations in brooding chicks and growing out pullets on clean ground is the most practical way of avoiding this high percentage of mortality in adult stock.

Summary of Grow Healthy Chicks Demonstrations					
Number of Records	Number Chicks Started	Number Chicks Raised	Value	Cost	Profit
12	3,395	2,181	\$1,837.55	\$1,284.10	\$605.60

Turkey Demonstrations

Interest in turkey production is continuing in South Carolina and the number of turkeys raised in the state will probably continue to increase.

This increase is expected because the price of turkeys held up well in the winter of 1943, and most people with turkeys for sale realized good returns for their labor. Then too, the war effort to produce more food will have some stimulating effects.

Summary of Turkey Demonstrations

Number of Records	Poults Raised	Cost	Income	Labor Income	Ave. Labor Income per Poult
4	6,364	\$21,112.33	\$31,297.62	\$10,136.77	\$2.23

Turkeys raised on South Carolina farms increased from 155,000 in 1942 to 178,000 in 1943, which is the highest on record for the state.

Chicken Pox Vaccinating Demonstrations

Chicken pox, roup, and canker cause a tremendous loss to farmers throughout the state each year by lowering the egg production of pullets in the fall. Demonstrations conducted in chicken pox control have been a big factor in helping farmers to avoid this loss.

Summary of Chicken Pox Vaccinating Demonstrations

Number of Demonstrations	Number Birds Vaccinated	No. Birds Died Result Vaccination	Number Chicken Pox Cases Developed
73	14,859	32	0

Short Course and Poultry Schools

Poultry short courses and schools give busy farmers an opportunity to get the latest information in the shortest possible time. For this reason, it is felt that this is a very valuable project. Most farmers do not take time to read and those who do usually have some trouble understanding recommendations given on poultry unless they can hear the recommendations given explained or see them demonstrated. A total of 80 people attended the state poultry short course. Thirty-eight took the examination and thirty passed which qualified them to cull and pullorum-test chickens under the National Poultry Improvement Plan. Six county poultry schools were held with a total attendance of 137.

Poultry Improvement Demonstrations

Close cooperation is given hatcherymen complying with the National Poultry Improvement Plan and their supply flock owners. These hatcherymen keep records on the number of eggs supplied by each flock owner, birds handled in flocks selection work, number of culls, number of reactors and total amount paid for hatching eggs.

Summary of Poultry Improvement Demonstrations					
No. of Hatchery-men	No. of Flock Owners	No. of Birds Handled	No. of Birds Culled	No. of Reactors	No. Doz. Eggs Value
21	220	38,489	2,466	1,225	373,397 \$75,869.38

Record of Performance Work

Record of Performance Work is the third breeding stage of the National Poultry Improvement Plan designed to supply official pedigreed breeding stock. The individual minimum requirements for females to qualify for R. O. P. is 200 eggs averaging 2 1/4 ounces to the dozen with good body weight and reasonable standard qualities. Record of Performance males come from R. O. P. females mated to R. O. P. males. The R. O. P. program coordinates work of the co-operating breeders and makes it possible for them to produce stock with official pedigrees since they are under official supervision.

There are approximately 182,000 breeding birds supplying hatching eggs to hatcheries in the state, with 12,000 males needed to mate to these flocks. Of this number only about 3,000 are pedigreed males bred for improvement. Nearly all of the pedigreed males in the state are used by U. S. Record of Performance breeders to make special breeding pens and by U. S. Certified Hatcheries.

Summary of Record Performance Work				
Number of Breeders	No. Birds Entered	Average Egg Production Per Bird	Number Birds Qualifying	Percent Birds Qualifying
11	3,600	220.6	783	20.9

PUBLICATIONS

A. B. Bryam, Agricultural Editor
J. M. Eleazer, Extension Information Specialist
Winnie Bell Holden, Radio Specialist

In handling the news service and publications work of the Publications Department during 1943, the special effort of the editor has been:

1. To write agricultural news simply and briefly in the style preferred by newspapers and newspaper readers. In all cases an effort is made to tie better farming ideas to the news of farming progress.
2. To cover all lines of Extension Service activities, with emphasis on those lines that are being given greatest attention at any time.
3. To avoid mere propaganda and boosting of institutions and individuals.
4. To seek full appreciation and cooperation of newspaper editors in their use of our material.
5. To encourage and aid county agents in the preparation and handling of local agricultural news.
6. To meet the changing needs for information on better farming through new methods and new forms in newspapers and publications.
7. To prepare or edit material for printed publications so that it will be reasonably simple and as interesting and appealing as possible.
8. To make all publications effective and attractive by the use of good illustrative photographs and drawings.

Procuring, Reviewing, and Editing Material

Printed publications, including bulletins, circulars, information cards, etc., are prepared usually by subject matter specialists and are analyzed and prepared for publication by the editor, with full conference with the specialists. News letters and feature material are procured partly through subject matter specialists and partly through direct work of the editor. All material is carefully studied and adapted to best use, whether printed publications or news material direct to newspapers or farm journals.

Methods Used in Distribution

Printed publications are distributed partly through certain classified mailing lists but more generally through individual requests come in large numbers from farmers seeking information and as a results of news stories announcing new publications or discussing old publications of timley importance.

News and information material is distributed directly to the newspapers or through the Associated Press and over radio. This material is now sent out chiefly in mimeographed news letters and in special stories to certain dailies and farm journals.

Much general and special news and information involving Extension Service activities is now prepared by J. M. Eleazer as extension information specialist and distributed largely from his Columbia office and partly through the agricultural editor's office. Mr. Eleazer is doing excellent work in his part-time position as information specialist, giving attention, among other things, to extension activities in the field which the editor's other duties make it impossible to give attention. His report is attached to this report.

The news letter are, generally speaking, used freely by the newspapers, which publish also much agricultural material from the offices of the county agents. Some of the news letter material is used also by editors as a basis for editorial discussion. There has been a noticeable increase in newspaper editorials based on Clemson news letters, particularly regarding better farm living, livestock, and economic conditions.

Many county agents have regular farm columns in their local papers and use therein much material from this office, with or without change, along with material of their own preparation. At present farm departments appear regularly in about 30 newspapers and irregularly in several others. All county agents, as Eleazer's report shows, are doing some form of newspaper publicity, many of them good; all the total result is being improved partly through Eleazer's influence.

Mailing Lists

The mailing lists used in the distribution of printed publications and news letters are kept up-to-date by constant revision from information received voluntarily or on request, from persons, postoffices, and otherwise.

Information Requests

Requests for specific publications and for information in general about agricultural matters are received in large numbers either direct by the agricultural editor's office or by reference from the President's office, the offices of the directors, or other departments. During the present year these totaled 8,929. The handling of these information requests calls for considerable correspondence and for consultation with specialists, as well as sending publications.

During the year the Publications Department distributed through its regular mailing lists and in answer to requests a total of 896,668 publications. These included 815,476 Extension Service publications, 24,117 Experiment Station publications, and 17,489 copies of USDA publications.

Publications Issued

During the extension year 40 publications were edited and printed - 30 new, 4 revised, 6 reprints. Below they are classified and briefly designated.

(a) Bulletins

Bulletin 103, Home Canning of Fruits and Vegetables (Revised), March 1943; a 32-page illustrated publication explaining the plan and processes of canning fruits and vegetables.

Bulletin 106, Household Equipment, Its Care and Simple Repair; September 1943; a highly illustrated 36-page publication giving explicit information and instructions about the care and repair of household equipment.

(b) Circulars

Circular 113, How ^{To} Tell Laying Hens (Reprinted), April 1943; 16-page publication with suitable illustrations giving the instructions on how to tell laying hens.

Circular 131, Feeding Laying Hens (Revised), October 1943; 16-page publication illustration giving the plans of feeding and various formulas and suggestions about feeding laying hens.

Circular 147, Poultry Sanitation and Health (Revised), February 1943; a 24-page discussion of the principles and best practices in poultry sanitation, with suitable illustrations.

Circular 148, Turkey Raising in South Carolina (Revised), July 1943; a 20-page illustrated discussion on the selection and care of breeding stock, hatching, brooding, feeding, equipment, finish for market, and sanitation and disease.

Circular 175, Sweet Potato for Home Use (Reprinted), September 1943; a 4-page leaflet giving illustrations and instructions for producing and storing sweet potatoes.

Circular 185, Grazing Crops for Poultry (Reprinted), April 1943; a 12-page illustrated publication discussing the various grazing crop for poultry.

Circular 200, Food Yardstick (Reprinted), April 1943; a small 4-page folder listing the approved food needs for one day, one week, and one year suggested by the state nutrition committee.

Circular 203, Peanuts for Victory (Reprinted), March 1943; an 8-page discussion of soils and climate, rotation, liming, and fertilizers, varieties, preparation, planting, cultivation, and harvesting of peanuts.

Circular 211, Silage (Reprinted), August 1943; a 6-page folder giving the value of silage crops, most suitable preparation, time of cutting, etc.

Circular 224, Wartime Fertilizer Recommendations for South Carolina; December 1942; an 8-page publication listing the recommended fertilizers for various crops in South Carolina.

Circular 225, Wartime Use of Farm Machinery; December 1942; a 6-page illustrated folder explaining how to get the most effective use of farm machinery.

Circular 226, Peanuts at Mealtime; January 1943; an 8-page folder listing various recipes and suggestions about the use of peanuts at mealtime.

Circular 227, The Farm Shop; January 1943; a 6-page folder illustrated to show the essential tools and equipment for a good farm shop.

Circular 228, More Food Through Victory Gardens; February 1943; a 6-page illustrated folder listing vegetables easily grown and generally used.

Circular 229, The Cotton Contest--1942; February 1943; a 20-page discussion of the purposes of the contest, the prize winners, the results of the contest to date, and the contestants for 1942.

Circular 230, The Agricultural Outlook--1943, February 1943; an 8-page folder discussing demand, income, prices, labor, and the outlook for various crops and livestock.

Circular 231, Wartime Milk Production; February 1943; a 32-page discussion of feeds, rations, feed production, pastures, care of the dairy cow, and other items involved in wartime milk production.

Circular 232, Better Farm Living and Food For Victory; February 1943; a 20-page illustrated guide for food production and better farm living.

Circular 233, Seed Treatments for South Carolina; March 1943; a 4-page publication giving a complete seed treatment chart and effective illustrations.

Circular 234, Swine Herd Management; March 1943; a 20-page well illustrated discussion of breeds, management, feeds equipment, marketing, disease prevention, and other information.

Circular 235, A Victory Garden for Every Family; March 1943; a 16-page guide book on vegetable production, with a handy planting guide regarding varieties, fertilizer, cultivation, etc.

Circular 236, King Cotton Goes to War; March 1943; a 4-page illustrated folder giving a brief summary of recommendations on cotton production based on South Carolina experience.

Circular 237, Brining at Home; March 1943; an 8-page folder giving information on making pickles and kraut.

Circular 238, Soybeans for Oil; April 1943; a 6-page folder discussing varieties, seedbed preparation, liming and fertilizer, time of planting, cultivation, insect and diseases, harvesting and storing.

Circular 239, Battling the Pine Beetle; May 1943; a 4-page illustrated folder discussing the nature of pine beetle injury, prevention, and control methods.

Circular 240, Upland Rice Culture in South Carolina; May 1943; a 4-page folder with brief instructions regarding climate and soil, varieties, soil preparation and fertilization, seeding and cultivating, harvesting and milling.

Circular 241, Outdoor Brooders; July 1943; a 4-page illustrated discussion of outdoor brooders, with bills of materials and detailed plans for making lamp and electric brooders.

Circular 242, Wartime Feed Crop Production; May 1943; a 4-page folder outlining important suggestions on feed production.

Circular 243, Home Dehydration; June 1943; a 16-page illustrated publication on the methods of dehydrating fruits and vegetables at home, with a condensed chart of directions.

Circular 244, Triple-A Tools for Better Farm Living and Victory; July 1943; a 36-page publication with questions and answers on the AAA regulations and provisions for 1943.

Circular 245, Combination Milking Barn and Milk House; July 1943; an 8-page folder of illustrations with brief explanations to show the construction of milking barn and milk house.

Circular 246, Storage of Home-Produced Foods; September 1943; an 8-page illustrated discussion of storage of home-produced foods.

Circular 247, Fifteen Years of Poultry Records; October 1943; a 20-page discussion of the results of 15 years of poultry records under extension service to supervision.

Circular 248, Meeting Wartime Feed Shortages; October 1943; a 4-page folder with brief information and suggestions on feed production.

(c) Information Cards

Information Card 69, Plan a Grazing System for Milk and Meat; January 1943; a 1-page poster type of publication suggesting suitable grazing for livestock.

Information Card 70, Vegetables Easily Grown and Generally Used; February 1943; a 1-page poster type of publication listing the important essential vegetables, with suggested varieties, planting dates, etc.

(d) Extension Posters

Poster 31, Wartime Use of Farm Machinery; January 1943; a 1-page display poster used in connection with the information in Circular 225, Wartime Use of Farm Machinery.

(e) Annual Reports

Wartime Farming in South Carolina; July 1943; a 52-page highly illustrated summary of extension activities for 1942.

(f) Periodicals

The Carolina Club Boy, volume XIX, No. 12 for December 1942, and volume XX, Nos. 1-10 for January through November 1943; a 4-page monthly distributed to 4-H Boys' Club in South Carolina. The material consists largely of news about 4-H club activities and informational and inspirational promotion of 4-H club work.

News Service Material Issued

(a) News Letters

A total of 497 mimeographed news letters was issued during the year carrying spot news and information about agricultural matters to the newspapers of the state. Copies of these letters are sent also to county farm agents and specialists of the Extension Service and the Experiment Station for their information. Some spot news stories were given to the Associated Press and some to daily papers in order to get important news to the daily newspapers of the state.

(b) Special Service and Feature Stories

During the year feature material was prepared from time to time for farm journals including The Progressive Farmer, The Southern Agriculturist, The Southern Planter, The Country Gentleman, Better Crops, The Furrow, and other farm journals as well as for certain daily newspapers of the state. The total number of such special and feature stories was 176. These are in addition to the 497 mimeographed "news letters" reported above.

As heretofore, a considerable part of the news service was in promotion of activities of AAA, SCS, AMA, and other federal agencies working with farm people. Because of the stress on better farm living, a large percentage of the news stories had direct or indirect bearing on the Better Farm Living Program. Material for news releases was derived partly from information out of Washington or other agency headquarters, but largely from state and local sources.

Clemson College Through WAIM, Anderson, S. C.

Radio Work

The Clemson Extension Service began broadcasting in April 1935 shortly after WAIM, Anderson, S. C. went on the air. Since that time approximately 425 weekly 15-minute broadcasts have been given. At present, the broadcasts are presented at 1:30 P. M. each Monday... Each 15-minute period is assigned to two specialists and, while at first the broadcasts were straight talks, they are now largely interviews and dialogues. Two broadcast periods in each three-month program are assigned to home demonstration agents in WAIM territory... The program is now designated, "The Better Farming Program of the Clemson College Extension Service", and is so announced at the beginning and the end of each program... Reports from WAIM and from Extension agents and individuals indicate that the programs are heard by many people in the area and are favorably received...

Palmetto Farm and Home Hour Over WIS, Columbia, S. C.

The 4-H and Home Demonstration Program: started over WIS radio station March 9, 1936 as a "round robin" program for the 16 counties in Central District- that set-up reunning irregularly for three rounds whereupon agents felt it such a burden, such a hardship- dozens of reasons why it was too much bother, and so they stopped briadcasting... But the home agent in Richland, Winnie Bell Holden, continued through the years with the program unassisted except for USDA Homemakers Chats, one of which was used almost weekly. The chat plus announcements, news bits, bits of information, and a tho't for the week made up most of the broadcasts. Sometimes a dialogue, outside speaker, or 4-H Club program was given, but since these had to be written and rehearsed much, and the demands on the agent's time were so many the miscellaneous type broadcast was given.

Part of 1942, and all of 1943, the Winthrop Specialist broadcasted 4th Fridays with the radio specialist preparing some of these broadcasts.

Since there was to be a less localized program in 1943 with more time to work up more varied programs with men and women specialists and 4-H Club boys and girls, agents and visitors over the state, the program's name was changed to "The Palmetto Farm and Home Hour" and to date, 404 broadcasts have been given since 1936.

Question Box - WIS, Columbia, S. C.

In 1942, WIS started its "Facts for Farmers" program at 1 o'clock with Gleen Adams, station announcer, in charge, and April 30 Mr. David R. Hopkins conducted a broadcast called, "The Question Box" on the "Facts for Farmers" program, which broadcast he is still doing... Questions are sent in by the listeners. Questions are asked as the writer writes them, and are answered "ad lib" by Mr. Hopkins and the announcer.. The

and 26 outside in 1942; and, up to June 1943, 26 were given by Florence and 21 other counties until the home agent secured another hour so that more home agent's programs could be given.

Mr. Hubbard, assistant agent, reports that there's a good deal of interest in the program.... Much listening in silence is done, and in case a wrong statement is made, listeners really let you know about it.... Many comments are heard on different and outstanding programs.

The Pee Dee Home Hour

Then, in June 1943, Miss Amelia Muldrow secured extra time away from the Pee Dee Farm and Home Hour with the hope of sharing the program more with home agents in adjoining counties. So far, however, the assistant home and home agents have shared the program equally and others have not been brought in on the broadcasts.... Plans may bring them in.

The Farm Firing Line, WFIG Sumter, S. C.

Mr. J. M. Eleazer, Sumter county agent, and now Clemson information specialist, started his radio program over WFIG Sumter, April 29, 1940- a total of 191 broadcasts through 1943.... He has every indication that people listen as evidenced by the offer once of his announcing he had some heading collard seed a farmer had saved for him.... To the first ones sending cards, he'd send some of these seeds..... 237 cards came in next day and on to a total of 527, requesting the seeds.... The Sumter station covers 3 counties....

The Home Agents' Program, WFIG Sumter, S. C.

Miss Sallie Pearce, home agent in Sumter County, has broadcasted 111 programs since Friday, October 17, 1941, having missed only three..... She, likewise, believes in radio to put the job over... She thinks the programs are listened to. Her people depend on radio for announcements of meetings.... She gives recipes once a month, household helps once a month, and subject matter dealing with one subject other broadcasts.... Prior to this, Miss Jean Reid, former Home Demonstration Agent, started "The Home Agent's Program" Friday, April 19, 1940-80 programs.

The Farm Folks Hour - WCRS Greenwood, S. C.

Mr. R. D. Steer and Miss Carolyn Avinger with assistant agent, built up quite a sizable audience on the "The Farm Folk's Hour" beginning September 10, 1941.... the good work of Miss Avinger being taken over by Miss Elizabeth Herbert who succeeded Miss Avinger.

Mr. Steer repeatedly hears from listeners within the hour after the broadcast and personally thinks radio a very effective promotional means of helping get farm information and news to his people.

Farm Findings--- WFBC Greenville, S. C.

Farm Findings a program by Mr. Gray, farm agent, was started April 28, 1942, with 84 programs to date having been given... Mr. Gray has many comments on the program, his listeners call for references and information and he gets letters of inquiry resulting from program... He believes radio vastly worth the time it takes to broadcast. He continues broadcasts in 1944.

The Home Demonstration Program, WFBC, Greenville, S. C.

The radio specialist was instrumental in getting Miss Julia Stebbins, home agent, to broadcast every other week with the State Board of Health over WFBC Greenville.

Miss Stebbins had some before broadcasted three years and because of change in station personnel and time change, Miss Stebbins's program was inadvertently omitted from the schedule.... Just a misunderstanding that the program was discontinued the specialist thinks and so she was glad to get Miss Stebbins started broadcasting again....

Miss Stebbins says people tell her every day that they are listening to the program.... sometimes people she doesn't know... that frequently she gets requests for information offered... She thinks radio an effective way to promote her work and so will continue programs.

The Piedmont Farm Hour, WSPA, Spartanburg, S. C.

W. H. Stallworth, farm agent, broadcasts on WSPA's farm program headlined by "Farmer Gray" - the studio farm editor... Since January 1, 1943, Mr. Gray has had Mr. Stallworth appear on his hour and has very recently added Mr. Stribling, farm agent of Cherokee, and Mr. Bailey, farm agent of Union, to his daily programs also.... The agents take whatever time "Farmer Gray" leaves for them on his 30-minute broadcast, and he and the agents put on an "ad lib" type program... Farmer Gray's program is well received, and he does a fine job of "Characterization" and selling time for the station...

Mr. Stallworth says he has many favorable comments on his program..... that it is enjoyed, and helpful and often times he has ten to twelve requests for bulletin reference or information given..

Twin States Farm-Home Program, WRDW Augusta, Ga.

District agents and home and farm agents cooperated in working up a radio program on the "fringe" of South Carolina and Georgia with the WRDW station

in Augusta, Georgia, a 5000-W station. Participating in this Twin States Farm-Home Program are home and farm agents in six South Carolina counties, and three Georgia counties.

Joint Broadcasts - North and South Carolina

Over WBT - Charlotte, N. C.

Mr. Siske with the Soil Conservation had charge of a program over WBT Charlotte with specialists from the North and South Carolina Extension Service and other agencies in a joint farm-home regional program... Winthrop Women Extension Specialists alternated, as I understand it, two weeks each month with Clemson Men Specialists in putting on this very fine program... Programs were made five months in advance and South Carolina specialists broadcasted from the fall of 1936 to the spring of 1940 - about four years, according to Miss Lonny I Landrum, State Home Demonstration Agent, who gave this bit of history for the report... But for the fact that the hour changed by WBT from a noonday program to an early 6:45 program, the specialists would have continued broadcasts... It seems to me this was a chance the Charlotte station had of giving its farm people a fine program which the station itself did not seem to appreciate otherwise it would not have changed hours without serious consideration of those concerned.

EXTENSION RURAL ELECTRIFICATION

W. J. Ridout, Rural Electrification Specialist

A cooperative extension project in rural electrification between the South Carolina Extension Service, the Rural Electrification Administration, and the Extension Service, U. S. Department of Agriculture, was organized in the early fall of 1940. Under this agreement, which became effective on November 1, 1940, a program of extension education in rural areas is to be conducted through a project financed jointly by REA and the South Carolina Extension Service. The project leader is W. J. Ridout, Jr., rural electrification specialist. Mr. Ridout was chosen by the Director of the South Carolina Extension Service and approved by the Federal Extension REA Liason Officer.

The activities of the project are threefold: (1) Assisting unserved farm people to obtain electric service on the most widespread economical basis; (2) Assisting farm people who already have electric service to make the most extensive, economical and efficient use of electricity in sound home, farm and community programs; and (3) Advise farm people that have electricity on their farms in South Carolina on the care and operation of their electrical equipment in order to receive maximum use of it during the present emergency.

Rural Electrification Program

Listed below are objectives of the rural electrification program:

1. To have rural electric lines built into every community of the State serving as many farms as want it.
2. To have safe and adequate wiring for all farmsteads receiving electric service.
3. To have all farm families make wise and economical use of electricity.
4. To increase farm income by improving methods and reducing cost of production.
5. To improve living conditions on the farms of South Carolina.

Results

From June 30, 1942 to June 30, 1943 the number of rural customers receiving electric service showed a slight increase from 76,848 to 77,806 which represents an increase of 958 for 1943. During this period the number of miles of line in operation increased from 17,384.14 to 17,583.75, an increase of 199.61 miles.

Below is a summary of rural line statistics showing this increase.

*Source	1942		1943		Increase for 1943	
	Miles	Cust.	Miles	Cust.	Miles	Cust.
Private Utilities	6,615.65	43244	6,698.18	43546	82.53	302
Greenwood Commission	443.50	2058	443.50	2093		35
Electric Cooperatives	9,692.59	26730	9,796.17	27344	103.58	614
Municipalities	472.60	4104	481.10	4087	8.50	17**
S. C. Public Service Auth.	159.80	712	164.80	736	5.00	24
Totals	17,384.14	76848	17583.75	77806	199.61	958

* - South Carolina Public Commission.

** - Indicates red.

It is interesting to note from the above summary that two-thirds of the total increase in the number of rural consumers served was by the REA cooperatives. The public service commission statistics show that the REA cooperatives served 27,344 customers as of June 30, 1943. A Rural Electrification Administration report as of October 1943 showed that REA financed systems at that time were serving 30,032 over 10,250 miles of line.

There is a total of 137,558 farms in the State of South Carolina according to the 1940 census. Of these 137,558, 49,100 are electrified as of October 1943. This represents about 36 percent of out farms as electrified. It is interesting to note that only 2.3 percent of our farms were electrified in 1935.

Demonstrations of Electric Equipment

Brooding Chicks

One electric brooding demonstration on 125 chicks showed an average cost of 28¢ per chick with a mortality of 5%.

Electric Hotbeds

Five electric hotbed demonstrations produced 456,000 plants at an average cost of 22.5 cents per 1000.

Summary of Electrically Heated Sweet Potato Curing House Demonstrations as Reported by County Agents

Number	Capacity	Cost per bushel
1	5,000 bu.	3.6¢
2	4,000 bu.	4.6¢
3	1,000 bu.	3.2¢
4	3,000 bu.	2.4¢
5	4,307 bu. cured	2.2¢

Freezer Locker Activity

There were four freezer locker plants operating in the State January 1, 1943, but this number operating has been increased to seven. The counties that now have freezer locker plants are: (1) Aiken, (2) Greenville, (3) York, (4) Spartanburg, (5) Dillon, (6) Anderson, and (7) Marion. All plants that were under construction in 1943 are now completed. These are: (1) York, (2) Spartanburg, and (3) Marion, plant at Mullins. Approximately 15 other counties are attempting to secure priorities at the present time. It is estimated that five more plants will be completed by January 1, 1945.

Some authorities think that the home locker will be the answer to the refrigeration problem in quite a few of our small farm homes. Of course, nothing can be done on this until after the war. There is a plan, however, for some research during the war on a homemade freezer locker box.

Care and Repair Program

The Care and Repair Clinics held throughout the State in 1943 were the most popular activity of the rural electrification specialist with the farm people for the entire year. The farm people felt that they really benefited from the time they spent at these clinics, particularly those that brought equipment that needed adjusting, cleaning or repairing. Others that came and did not bring equipment would either go back home and get it or watch with enthusiasm and they would always ask when another clinic would be held and they would make the statement that they would certainly take advantage of the next clinic.

The farm people would do the actual adjusting, cleaning or reaping. Most of them had never really examined their equipment and after giving it the attention required they would say, "Well this caring for equipment is much simpler than I thought, why haven't I done this before?" The tools used at these clinics were of the simplest nature including pliers, screw drivers, end wrenches, and hammers. Cleaning was done with chicken feathers, tooth brushes and rags using kerosene as a solvent.

In addition to the farm people those attending usually were the county or home agent, specialists from Winthrop and Clemson Colleges, and a representative from either the power company or cooperative, whichever line served the community where the clinic was held. The power company or cooperative profited by these clinics because that equipment that had not been operating was immediately put back in operation. They also let the farm people know where future repairs of equipment might be done if the job was too complex for the individual farmer or farm woman.

Results of these clinics are shown on the next page.

Schools or Activities	Number Held	Total Attendance	Percent Counties Participating	Comments on Work Done
One day pressure cooker and sealer clinics	21	915	46	685 pressure cookers checked. 22% gages adjusted. 6% gages & safety valves needed factory adjustment. 184 sealers checked. 76% needed adjustment. 16% needed factory repairs.
One day electric equipment repair schools	61	1315	80	1826 pieces of equipment repaired including percolators, waffle irons, toasters, ironing cords, motots, etc.
One day sewing machine clinics	44	471	72	471 sewing machines cleaned, adjusted & repaired. Farm women instructed how to do this work themselves.

Bulletin Number 106 entitled, "Household Equipment, Its Care and Simple Repair", was prepared the latter part of the year. This material should be of great value if used in connection with care and repair clinics next year.

Dehydration

In the early part of 1943 there was a great deal of enthusiasm among our farm people and other agricultural workers relative to dehydration as a method of food preservation. This abundance of interest was due to the "scarcity of materials" stories that always go along with a war. These people wondered whether they would be able to conserve all the food they had been asked to raise in their Victory gardens and on their farms because of a probable shortage of tin cans, jar caps and rubbers, and pressure cookers.

All educational agencies were concerned with this problem and started doing what they could to offset a possible shortage of materials needed in the conservation of food by methods other than dehydration. Circular No. 243 entitled, "Home Dehydration", was prepared by the extension nutritionist and the rural electrification specialist. Ten educational schools were held for training agricultural workers such as county home agents, home economic teachers and Farm Security Administration home supervisors who did the job of teaching the farm women how to dehydrate during 1943. About 20 dehydrators were built in the Extension Service shop the first of the year. These units were used by our county home agents in training meetings. Many of the farm people who attended these county training meetings went home and built a dehydrator from the plans found in Circular No. 243.

When the time came to conserve food, it was found that plenty of tin cans, jar tops and rubbers and later on pressure cookers were made available. Some dehydration was done but it was not practical on a large scale.

Many problems were confronted during the year in dehydration such as preparation for dehydration, amount of time to dehydrate, varieties that are best suited for dehydration, packaging and storing. More research is definitely needed on all of these problems.

SOIL CONSERVATION

E. C. Turner, Extension Conservationist

The State Soil Conservation Committee designated in the South Carolina Soil Conservation Districts Law is composed of the Director of Extension and the Director of the Experiment Station. The State Conservationist of the Soil Conservation Service is appointed by the Secretary of Agriculture to serve on this committee. The Extension Conservationist is Secretary to the State Committee and keeps all of the records of the Committee.

Technical Subcommittees

In order to carry out the second project, the State Committee found it was necessary to appoint various technical subcommittees, such as engineering, agronomy, forestry, pasture and orchard erosion control. These committees summarized all information on their various technical subjects, which summary was turned over to soil conservation technicians and was used as a basis for soil conservation operations in the field. With the organization of soil conservation districts these subcommittees have been used by the supervisors to assist them in preparing their district program and work plans. To date no district program and work plan has been submitted by the supervisors until it has first been reviewed by the various subcommittees. It is then approved by the supervisors and passed on to the State Committee for approval.

There were four new districts organized in South Carolina this year. The Berkley District, composed of Berkley County; the Charleston District, composed of Charleston County; and the Hampton District, composed of Hampton County. The Jasper District at first was organized to compose Jasper County only, but later when a petition was received from Beaufort County, The State Committee decided that due to geographical location of Beaufort County, and the close proximity to Ridgeland, the headquarters of the Jasper District, that it would recommend that the Jasper District change its boundaries to include all of Beaufort County. Hearings and referendum were held in Beaufort County, which proved agreeable with the Beaufort County farmers; so the boundaries of the Jasper District were changed to include all of Beaufort County. This makes a total of 21 districts in South Carolina and a total of 46 or all of the counties in the State now organized.

Extension Method of Conducting Soil Conservation Work

In South Carolina the Extension plan of conducting educational work on soil conservation is centered around group planning and field demonstrations. The county agents hold regular conferences with the soil conservation district technicians. In some counties these are monthly, in other counties they are more often, and in some counties every two months. The idea of the regular conference is to keep in touch with the educational needs of the soil conservation district so that the county agents and district technicians can plan

their group activities and demonstrations to fit into each other's program. In some districts the supervisors have been calling monthly or quarterly conferences of all agricultural workers within the district to discuss the district operations and to make plans for future operations. Due to travel restrictions the tendency of the supervisors is to call these conferences only once or twice a year now, and in some cases they have been discontinued.

In addition to the regular scheduled conferences the county agents and soil conservation district workers are usually located in close proximity to each other if not in the same building and contact each other often so that each is kept informed of the progress and problems encountered.

In South Carolina there is a splendid spirit of cooperation between the workers of both the Extension Service and Soil Conservation Service. In addition to the method demonstrations there has been a number of field meetings at result demonstrations. This year because of transportation difficulties the county agents and soil conservation district technicians have held a number of small community or neighborhood tours to visits farms where soil conservation practices have been established. Usually these are held in the afternoon and they visit some two or three farms within the immediate neighborhood. There is a general plan in use, wherever practical, that when a method demonstration is conducted in establishing a soil conservation practice, this is followed by the entire group visiting another farm close by where they may observe this practices after it has been established. Probably some of the most effective educational work has been accomplished in this manner.

Educational Activities, Soil Conservation

Reported by County Agents

	<u>Number</u>	<u>Attended</u>
1. Monthly group conferences agricultural workers	213	1,262
2. Community educational meetings held within districts	214	4,524
3. Method demonstration (establishing practices)	424	2,326
4. Meetings result demonstrations	61	1,082
5. County agents assist farm planning	212	
6. Informational news articles	838	
7. Informational circular letters	153	
8. Soil conservation exhibits	13	
9. County agents meeting with district supervisors	92	728
10. District soil conservation program with 4-H clubs	16	326
11. Annual meetings of county associations	7	25
12. County or community meetings held on soil conservation district organization	26	236

Extension Demonstrations Establishing Soil Conservation Practices

A Part of Carrying Out District Plans on Farms - - - 1943

	<u>Number</u>
1. Perennial lespedeza (meadow strips and field plantings)	418
2. Kudzu (meadow strips and field plantings)	385
3. Strip cropping	402
4. Permanent pastures	564
5. Summer and winter annual crops	3,705
6. Terrace construction	2,350
a. Power terracing outfits in operation in counties	28
b. 1. Acres power terraced	22,669
2. Number farms on which this work was done	1,138
c. 1. Acres farmer built terraces	32,099
2. Number farms on which this work was done	1,443
7. Terrace maintenance	657
8. Woodlot management demonstrations	91
9. Forestry practices demonstrations	261
10. Forestry plantings	311

Summary of Soil Conservation Practices Established on Farms
Under District Agreement

Reported by County Agents - - - 1943

	<u>1943</u>
1. District farm plans	2,415
2. Approved rotations (acres)	83,050
3. Strip rotations	24,731
4. Kudzu plantings (acres)	12,301
5. Lespedeza sericea (acres)	5,283
6. Pasture improved (acres)	12,775
7. Trees planted (acres)	3,960
8. Woodland improvement (acres)	39,630
9. Terracing (acres)	49,227
10. Tons of lime (AAA conservation material and other)	115,917

VISUAL INSTRUCTION

Thos. W. Morgan, In Charge of Division
Stanley V. Lewis, Assistant in Visual Instruction

Visual Instruction work in 1943 included the showing of educational motion picture, the preparation and showing of black and white and colored slides, the making of photographs of agricultural and home demonstration subjects, and the preparation of charts and exhibits.

Motion Pictures

Library of Motion Pictures Films: Following is a list of educational motion picture films available for showing:

- A NATIONS MEAT - 30 Min. - Sound - Black and White
How the nation's meat is grown, slaughtered and distributed.
- AMERICA MARCHES ON - 10 Min. - Sound - Black and White
Portrays advance in standard of living of America through cooperation.
- BEEES - 10 Min. - Silent - Black and White
Portrays bees in gathering nectar and making honey.
- BEEKEEPING IN SOUTH CAROLINA - 20 Min. - Silent - Color
Just what the title says.
- BEHIND THE SHADOWS - 10 Min. - Sound - Black and White
Tuberculosis film showing how T. B. may be detected.
- BLACK SCOURGE - 11 Min. - Sound - Black and White
Portrays development and use of fungicide to destroy fungus which cause smut, blight, root-rot, seed decay, and seedling blight common to grain.
- BROODING AND REARING CHICKS - 10 Min. - Silent - Black and White
Procedure of handling baby chicks in brooding house.
- CARE OF THE FEET - 10 Min. - Silent - Black and White
Portrays structure of the feet, harmful effects of improper shoes and points of a good shoe.
- COOPERATE FOR COMBAT - 10 Min. - Sound - Black and White
General farm picture.
- COWS AND CHICKENS, U. S. A. - 30 Min. - Sound - Black and White
How the dairy and poultry business is carried on and its products distributed and marketed.
- DO UNTO ANIMALS - 19 Min. - Sound - Black and White
A film to show proper methods of handling livestock in process of marketing.

- ELECTRICITY ON THE FARM - 20 Min. - Silent - Black and White
Portrays many and varied uses of electricity on the farm.
- FARM BATTLE LINES - 10 - Min. - Sound - Black and White
Portrays how farm products are converted to battle uses.
- FARM WORK IS WAR WORK - 15 Min. - Sound - Black and White
A good L-H film on Women's Land Army.
- FOREST FIRES OR GAME - 10 Min. - Sound - Black and White
Portrays disastrous effects of forest fires on game.
- FOREST AND HEALTH - 10 Min. - Sound - Black and White
Portrays the need of forest for the health of mankind.
- L-H CLUB WORK - 25 Min. - Sound - Black and White
Portrays various activities of the L-H club.
- FRONTIERS OF THE FUTURE - 10 Min. - Sound - Black and White
Portrays possibilities of future developments of super highways, etc.
- GAME BIRD FARMING - 10 Min. - Silent - Black and White
How to raise game birds including the control of disease.
- GEORGIA QUEEN BEES - 20 Min. - Silent - Color
Of interest to beekeepers. How queens are produced commercially.
- GUARDIANS OF PLENTY - 15 Min. - Sound - Black and White
General on farmers as the "Guardians of Plenty".
- HEALTH AND HAPPINESS - 10 Min. - Sound - Color
A color film portraying the need of proper diet and exercise to build healthy bodies.
- HENRY BROWN, FARMER - 10 Min. - Sound - Black and White
What the colored farmer is doing for the war effort. For Negro audiences.
- HIDDEN WEAPONS - 10 Min. - Sound - Black and White
How farm products can be converted to war use.
- HIGHWAY BEAUTIFICATION - 20 Min. - Sound - Black and White
Portrays ways in which highways may be made more beautiful and safer.
- HOME ON THE RANGE - 10 Min. - Sound - Black and White
Western livestock production.
- JUNIOR CATTLEMEN - 10 Min. - Sound - Black and White
Mississippi L-H club boy wins state prize with his beef calf.
- JUST A CLOWN - 7 Min. - Sound - Black and White
Cartoon comedy.

- KING COTTON - 9 Min. - Sound - Black and White
Portrays certain technique in cotton production.
- LEARN TO SWIM - 20 Min. - Sound - Black and White
Demonstration of proper method in learning to swim as well as advanced swimming at Silver Springs, Florida.
- LET MY PEOPLE LIVE - 30 Min. - Sound - Black and White
Tuberculosis film appealing to the Negro to control the disease in the colored race.
- LIFE OF THE SOIL - 30 Min. - Sound - Black and White
Proper soil conservation methods.
- LIVE AT HOME - 15 Min. - Sound and Color
General film on how the farmer by raising his own food aids in the war effort.
- MARKETING SOUTH CAROLINA WATERMELONS - 20 Min. - Silent - Color
Of specific interest, just what the title says.
- MEAT AND ROMANCE - 25 Min. - Sound - Black and White
Nutrition film explaining balanced diet, Close of film in color.
- NATIONAL POULTRY IMPROVEMENT PLAN - 30 Min. - Sound - Black and White
Methods for improvement of poultry breeding for higher egg production and better meat quality.
- NES HARVEST FOR VICTORY - 8 Min. - Sound - Black and White
Importance of soybeans, peanuts, etc. in making equipment.
- ON THE FIRING LINE - 15 Min. - Sound - Black and White
Portrays the need and methods for control of tuberculosis.
- OUR WILD LIFE RESOURCES - 25 Min. - Silent - Black and White
Portrays various forms of wild life in their natural habitat and the efforts being made to preserve same.
- PIG PROJECTS MAKE PROFIT - 12 Min. - Silent - Color
Color film showing how L-H boys "learn by doing" as well as earn additional income in connection with pigs.
- PORK FOR VICTORY - 15 Min. - Sound - Black and White
Good to show swine sanitation practices.
- POULTRY - A BILLION DOLLAR BUSINESS - 30 Min. - Sound - Black and White
Portrays the magnitude of the poultry business and how it is conducted.

- POWER AND THE LAND-35 Min. - Sound - Black and White
Portrays life on the farm without electricity and then with the advent of electricity.
- PUTTING PLANT FOOD TO WORK - 20 Min. - Sound - Black and White
Portrays vividly the advantages of proper placement of fertilizer over improper placement.
- RE-CREATION - 30 Min. - Sound - Black and White
Portrays the recreating effect of the forest upon the modern city dweller.
- ROAD TO TOMORROW - 10 Min. - Sound - Black and White
Portrays varied activities of 4-H club groups throughout the nation and outlying possessions and their place in the future.
- SALT OF THE EARTH - 20 Min. - Sound - Black and White
Portrays farming as a vital business which effects every American furnishing food and clothing.
- SAM FARMERS COTTON - 30 Min. - Sound - Black and White
Portrays requirements and practices necessary for successful cotton production.
- SAVE THE SOIL - 10 Min. - Sound - Black and White
Portrays men's useless destruction of land unless proper soil conservation methods are employed.
- SCREWWORMS - 20 Min. - Sound - Black and White
Portrays the effect and control of screwworms in livestock.
- SEEDS OF PROSPERITY - 10 Min. - Sound - Black and White
Portrays cotton seed for planting.
- SIX LEGGED SABOTEURS - 10 Min. - Sound - Black and White
Part cartoon - part picture on insect farm damage.
- SOLDIERS OF THE SOIL - 40 Min. - Sound - Black and White
The newest and best production showing the farmer's part in the war effort. A regular feature show for all audiences.
- SOUTH CAROLINA LIVESTOCK SHOWS - 20 Min. - Silent - Color
Showing what South Carolina is doing at its annual livestock shows and sales.
- THE BATTLE IS IN OUR HANDS - 25 Min. - Sound - Black and White
General picture of the farmers' importance in the war.
- THE FARMERS WIFE - 10 Min. - Sound - Black and White
Compliments the farm wife on her steady everyday work.

THE FARM GARDEN - 20 Min. - Sound - Color

A complete movie on how to plant and care for a victory garden.

THE FOREST SERVES MAN - 10 Min. - Sound - Black and White

Portrays forest and forest products.

THE MOSQUITO 18 Min. - Sound - Black and White

Portrays effects and control of the mosquito pest.

THE NEGRO FARMER - 25 Min. - Sound - Black and White

Portrays work being done in the interest of better farming and living for the Negro farmer.

THE RIVER - 25 Min. - Sound - Black and White

A dramatic portrayal of poor land use of the past, its effects upon the present and some thoughts to avoid disaster in the future.

THE SOIL - 27 Min. - Sound - Black and White

Film dedicated to better farm living.

TOMORROWS LEADERS - 15 Min. - Sound - Black and White

L-H club picture of typical L-H activities.

TREES FOR TOMORROW - 20 Min. - Sound - Black and White

Proper forestry methods. Of general interest.

UNDER THE L-H FLAG - 60 Min. - Sound - Black and White

Portrays L-H club work.

V-MEN - 20 Min. - Sound - Black and White

How modern scientists have tracked down the vitamins and how the housewife should use their findings.

WHEN THE COWS COME HOME - 10 Min. - Sound - Black and White

Portrays methods of dairy herd improvement.

Showings of Motion Pictures: One motion picture sound truck was operated in 1943. This truck carries sound motion picture equipment, a portable generator for current where electricity is not available, and one copy of each educational film in the Extension Film Library, and was scheduled through county agents and home demonstration agents for showings of educational motion pictures to farm people at county, community and neighborhood meetings.

During the year 116 such showings were made to 11,575 farm people.

Slides and Filmstrips were used extensively by extension workers in carrying out the 1943 program of work. Approximately 300 slides, including black and white and colored slides were prepared during the year on the following listed subjects: Fair exhibits, 4-H winners, fire protection, victory gardens, poultry, livestock, field crops, forage schools, liming soils, silos, forestry, experiment results, 4-H club camps, and agricultural engineering.

These slides are used by county agents and specialists in carrying out their programs of educational work with farm people.

Photography

Approximately 400 photographs of agricultural and home economics subjects were made and finished during the year.

State Fair Exhibit

Assistance was given in preparing the State Fair Exhibit in 1943.

HOME DEMONSTRATION WORK

Lonny I. Landrum, State Home Demonstration Agent
Juanita Neely, Assistant State Home Demonstration Agent
Bessie Harper, District Home Demonstration Agent
Elizabeth Monroe, District Home Demonstration Agent
Theodosia D. Plowden, District Home Demonstration Agent

Preparing and planning for the job

Early in January white Extension workers gathered in Columbia to discuss necessary changes in the program, and to plan immediate points of attack to meet new situations arising from the war. Immediately following this conference, a similar one was held with all negro workers at the State College for negroes.

All specialists adapted their subject matter and plans to fit the war needs, and prepared themselves to train the agents in the use of new subject matter and materials. Therefore in early spring, refresher courses were held with small groups of agents throughout the State in canning, brining, drying, dehydration, and equipment repairs. Following these, household and sewing machine clinics were held over the State by the Home Demonstration Specialists. In early fall, meat canning schools were held for agents in small groups.

In August all Extension workers spent one week at Winthrop College in joint conference. Mornings were devoted to discussions and plans on subjects pertaining to joint work, while afternoons were devoted to separate work with specialists giving definite demonstrations and subject matter on pertinent phases of work.

In September one-day district conferences were held of all men and women to plan for the War Bond Drive, and to discuss other extension phases of work. As the needs arose during 1943 for preparing agents for the job confronting them, conferences and training schools were held.

Local and neighborhood leaders

Rural development and progress depends primarily on rural leadership. The importance of leadership in this field can not be stressed too strongly. For more than 20 years home agents have secured and helped train local leaders to assist with the women's and 4-H club work. About 6 years ago county and community agricultural committees were formed jointly by home and farm agents. Both farm men and women were on these committees and each year since more community committees were added and the members assumed more duties as local leaders in the Better Farm Living Program. It was, therefore, only a matter of enlarging the existing organization and expanding its duties to perfect the neighborhood leadership plan in South Carolina. These leaders have rendered invaluable assistance in both the regular Extension program and in the special wartime activities. They have given generously of their time and energy and have furnished, in most instances, their own transportation to training and committee meetings as well as for the work done with their neighbors.

To prepare these leaders for rendering the most effective service, white home agents held 233 training meetings for adult leaders with an attendance of 204. Negro home agents held 103 training meetings for adult leaders with attendance of 2,422, and 71 training meetings for 4-H leaders with an attendance of 1,369.

The following figures from home agents' reports give some ideas, further, of the service rendered by these leaders, but they do not begin to show the real value or the scope of the contribution they have made to the welfare of their communities and to the war effort:

a. Number different active voluntary leaders:

(1) <u>White</u> - Adult Work:	men	-	4,520	
	women	-	2,210	
4-H and Older Youth Work:	men	-	87 older club boys	3
	women	-	369 older club girls	51
(2) <u>Negro</u> - Adult	men	-	223	
	women	-	820	
4-H and Older Youth Work:	men	-	44 older club boys	22
	women	-	252 older club girls	46

b. Number meetings held by these leaders without an extension worker being present:

(1) <u>White leaders</u> - Adult Work:	No. meetings	-	564
	Attendance	-	8,367
4-H and Older Youth:	No. meetings	-	155
	Attendance	-	2,825
(2) <u>Negro leaders</u> - Adult Work:	No. meetings	-	95
	Attendance	-	1,537
4-H and Older Youth:	No. meetings	-	47
	Attendance	-	771

c. Days assistance rendered by voluntary leaders:

- (1) White leaders - 13,674
- (2) Negro leaders - 1,746

Organized clubs for rural women and girls

Through organized clubs the home agents find their most efficient rural leadership, and therefore are able to develop programs through them for the betterment of rural home life. During 1943 the organized clubs were kept alive and carried out strong programs in spite of transportation difficulties and other influencing war factors.

- (1) With white women and girls
 - 713 home demonstration clubs were organized
 - 12,000 women were enrolled in these clubs
 - 530 4-H girls and older youth clubs
 - 9,739 girls were enrolled
- (2) With negro women and girls
 - 256 home demonstration clubs
 - 7,750 women enrolled in these clubs
 - 232 4-H girls and older youth clubs
 - 6,347 girls were enrolled

Further reaching and serving the people

The war programs were given first consideration by all extension workers in 1943. White home agents devoted 3,354 days to war activities and the negro home agents 408 days. Extension workers and rural women have knitted and sewed for the Red Cross, contributed to funds for Pennies for Friendship, cooperated fully in the War Bond drives, and participated in all other war programs.

In addition to the war work much useful and practical information has been widely given to farm families and many of these families have applied the same as is shown by the following figures:

- (1) With white families
 - 43,870 farm homes made definite changes in practices as a result of the home demonstration program
 - 10,191 other homes made definite changes in practices as a result of the home demonstration program
 - 88,889 farm families were influenced by some phase of the Extension program
 - 17,265 other families were influenced by some phase of the Extension program
- (2) With negro families
 - 10,788 farm homes made definite changes in practices as a result of the home demonstration program
 - 2,808 other homes made definite changes in practices as a result of the home demonstration program
 - 13,061 farm families were influenced by some phase of the Extension program
 - 1,658 other families were influenced by some phase of the Extension program

Various methods have been used in reaching the people, chief among them the method demonstrations. 9,265 such demonstrations were given by white home agents, and 4,052 by negro agents. Mediums used other than organized clubs are: volunteer leaders, special community or county-wide meetings, tours, exhibits, home visits, circular letters and publicity. Camp and all-day programs provide not only recreation but also demonstration and lecture periods where pertinent information is given. Attendance at these demonstration meetings were: white, 135,072 negro, 70,759.

State-Wide Activities

Farm home planning: The specialist in charge of home accounts and management prepared a timely leaflet to be used by the farm homemaker in planning farm and home activities from time to time during the year. As the war causes frequent changes, outlook information must be changed to meet the situations. Therefore, home agents presented pertinent information during the year as the needs arose. Such information was presented to white groups in 742 communities and to negro groups in 179 communities.

War work, not previously reported

Nutrition Committee: The Extension nutritionist and the state agent are active members of the State Nutrition Committee. Both attended at meetings and participated actively in all plans.

County home and farm agents are members of the County Nutrition Committees. Home agents have taught nutrition courses, trained canteen workers, block leaders and Red Cross nurses in pressure canning. They also give assistance to community canneries, and checked on causes of food spoilage.

The state agent serves as chairman of the health sub-committee of the State Nutrition Committee.

State and County War Committees: The state agent and several other members of the state staff have served on sub-committees of the State Defense Council, while in all counties the home and farm agents are members of the County Defense Councils. Farm women have also served on these councils, acted as airplane spotters, and have been active in all war programs. The Defense Councils have not been active in 1943 as they were in 1942 due to changes in war situations.

The state agent is an active member of the State Salvage Committee, the War Bond Committee, and the Food Fights for Freedom Committee.

The assistant state agent serves as chairman of the Steam Pressure Canner Committee, which was a sub-committee of the Farm Machinery Committee. She made plans for securing the state quota of steam pressure canners for educational purposes. These canners were used by home agents, farm security home supervisors, and home economics teachers.

Regional Post War Committee: The state agent serves as a member of the Regional Women's Section of Post War Planning of the Southern States. She has attended all meetings and has actively carried out duties involved.

Work with affiliated organizations

State Home Economics Association: One district agent served as acting president of the association, attended the national meeting, planned the meeting of the state association and presided over it. Other members of the state staff and home agents served as officers and chairmen in this organization.

Council of the Common Good: This council is composed of representatives of all women's organizations of the state, thus strengthening plans of work in each. Several members of the home demonstration staff serve as committee members of this council.

State Federation of Women: The state home demonstration administrative and supervisory workers always attend the state meeting. The state agent and two district agents are members of committees.

State Garden Clubs: The state Extension Service called on all Garden Clubs last year to help organize city people on the Victory Garden program. Home agents and state extension workers made many talks to the Garden Clubs and helped them organize for this work. The State Garden Club president served on the State Victory Garden committee.

Business and Professional Women: Several home agents are members of this organization. Staff members of the home demonstration department made numbers of talks before county and state groups.

Home Demonstration Project Activities

Better Farm Living and Food for Victory Program: At the beginning of 1943 Extension plans were geared to an "all-out" food and feed program to meet the needs of a nation at war. The aim of the farmers in South Carolina was to make the state as near a self-sufficient one as possible in order to release commercially produced and processed foods for military and Lend-Lease purposes.

The Extension Service realizing the need for full cooperation of all citizens in a program calling for an increase of food crops and livestock over 1942, set out to organize for the greatest food production and conservation program ever undertaken in the state.

Home demonstration agents assumed the main responsibility of the Victory Gardens in this food and feed production program, as well as for the food conservation program. The goal in South Carolina was 141,000 farm gardens and 275,000 city gardens. This garden and conservation program was incorporated in the Better Farm Living Program which is a long-time objective of the Extension Service in making South Carolina farming more self-sufficient.

Not only was emphasis given to producing food, but conservation, preservation, and the year-round using of the right foods received emphasis. 1943 war goals of other foods produced in South Carolina were not appreciably increased. Therefore, the farmers best contribution (though not their only one) seemed to be in renewed efforts in making their own farms self-sustaining, and providing local markets with fresh produce.

In order to reach all farm people with information regarding their part in this far-reaching Food for Freedom Program, all agents organized for the assistance of neighborhood leaders, home demonstration club members, and 4-H members in reaching every farm family. Much time was spent in preparing these leaders for this program and work during the year. The following activities give an insight into the importance of this program:

(1) In conduct of B.F.L. program:

Communities organized.....	1,018
Neighborhood leaders.....	8,000
No. Meetings held with leaders.....	545
No. leaders trained for special work.....	7,425
No. circulars to leaders.....	308
Special news letters.....	139
No. rural meetings.....	1,087
Attendance.....	49,621
No. H. D. Club Meetings.....	2,557
Attendance.....	32,494
No. 4-H club meetings.....	2,933
No. 4-H members enrolled in Food for Victory...	18,115
Total no. method demonstrations.....	6,240

(2) In conduct of Victory Garden program:

No. town people given help in gardening.....	4,822
No. town people attending garden meetings.....	2,854
No. rural people attending garden meetings.....	12,232
No. bulletins distributed by Home Agents.....	27,103

(3) In conduct of food preservation program:

No. meetings with town groups.....	166
Attendance.....	3,535
No. meetings with rural groups.....	1,103
Attendance.....	13,761
No. bulletins distributed by home agents.....	32,931
Canning centers given assistance.....	64

(4) Results in Gardening and Food Preservation:

No. town victory gardens.....	225,000
No. rural victory gardens.....	112,000
No. rural women canning meat.....	31,558
No. quarts.....	1,906,042
No. rural women canning fruits and vegetables..	67,224
No. quarts.....	8,878,643
No. 4-H girls canning meat.....	1,378
No. quarts.....	8,559
No. 4-H girls canning fruits and vegetables....	6,515
No. quarts.....	300,691
Total glass quarts canned in all homes and centers in state.....	15,664,800
Total no. tin containers in homes and center.	6,191,836
Total no. containers of marmalades, jellies..	1,962,112
Total no. lbs. dried fruits and vegetables...	2,247,652

Clothing

The wartime extension clothing program was planned to help farm families meet the changing clothing situation through demonstrations in care and conservation, better planning and buying, and simple construction.

Agents and leaders in 44 counties gave planned clothing demonstrations to farm women and girls in 681 communities, giving 485 method demonstrations to adults and 377 girls. One thousand, thirteen voluntary leaders helped agents to put across the wartime program for clothing.

Enrolled in projects were 5,086 women and 3,893 girls, an increased membership of 2,833 over 1942.

The Extension clothing specialist, home management specialist, electrical engineer, and the agricultural engineer from Duke Power Company all cooperated in holding a series of repair clinics throughout the state. Over 740 sewing machines were cleaned and adjusted at 54 clinics. This represents a savings of approximately \$3,350.00 to these families.

As a further result of the conservation program, girls and women made over or repaired 32,098 garments. Club women made 27,212 new garments and 4-H girls made 6,025. Farm families provided storage space in 1,313 homes as a measure in conserving clothes. Farm women have made 1,430 slip covers to protect furniture and add comfort to their homes.

Extension club members have found time to do their full share of Red Cross sewing and knitting. Over 16,000 garments have been made by farm women. Spartanburg club members alone have made 1,995 garments for the Red Cross.

Home Management and house furnishing

Home management and house furnishing demonstrations were carried out in 1,282 communities with the aid of 992 local leaders.

As a result of war situations, farm people are more interested in planning for the family's needs, for war demands, for income and its careful use.. With the aid of 1,098 local leaders, 8,898 farm families in 742 communities were assisted in planning ahead. Household accounts were kept by 270 families, 5,252 families were assisted in "making versus buying" decisions and 5,403 families used timely economic information. One hundred and sixty 4-H girls kept personal accounts.

Six unit demonstration families in six counties carried out farm home plans to completion under joint supervision of farm and home agents.

Due to scarcity of building materials only 60 families were assisted in constructing new buildings, 681 families used remodeling plans.

In making the farm home more convenient and sanitary, 960 families improved or rearranged kitchens, 2,930 homes were screened and 1,363 families reported 2,651 storage spaces added.

During the spring clean-up, fix-up program 11,642 farm families cleaned up their yards and lots, 4,216 families mended gates and fences, 4,400 roofs, porches and doorsteps were repaired, 2,280 buildings were painted, stained or whitewashed.

As a result of demonstrations and repair schools:

- 4,578 families improved the care and storage of kitchen knives
- 2,854 families improved the care and storage of kitchen utensils
- 2,197 families cleaned and repaired kitchen ranges
- 1,678 pieces of small electrical equipment were repaired and
- 882 families improved home lighting
- 3,818 families improved their methods of housekeeping

Furniture was repaired, remodeled, or refinished by 3,249 families, 1,941 families refinished walls and floors, and 1,842 families improved the arrangement of their rooms. Two thousand, one hundred and seventeen women and girls studied six world famous paintings.

Family relationships and parent education

The emphasis was put on "children in wartime", protecting them from fear and worry and guiding the adolescent. This work was carried out in 142 communities with the help of 159 leaders with these results:

- 701 families were assisted with child development and guidance problems
- 1,178 families were assisted in improving family relationships
- 306 families provided play equipment for children
- 906 women participated in this program
- 1,496 children were represented by these women

Summary of foods and nutrition work

Foods and nutrition work was on the front line of interest in 1943. A state nutrition clinic was held for all extension workers - 80 nutrition clinics were held in counties - 23 Red Cross nutrition classes were taught in the counties.

Sixty-four training schools were held for agents or agents and local leaders on foods and nutrition, beef cutting and canning, and drying and dehydrating of fruits and vegetables.

All counties did some kind of foods work during the year - 4,584 women in 22 counties enrolled in food and nutrition as a major project, 26,281 families have improved their home food supply by improving their method of producing 22,107 families have improved their diets according to the South Carolina food yardstick, 3,839 families were helped with food preservation work, 13,723 families canned according to a budget, and 1,464 families were helped with child feeding problems.

Over 300 acres were planted in edible soybeans as follow-up work launched in 1942.

Four thousand, four hundred forty-five 4-H girls entered the health contest with 2,248 county completions, 5,253 4-H girls did food selection and preparation work and 7,084 4-H girls did food preservation work.

Home Demonstration Marketing

The home demonstration marketing program has helped in supplying food on local markets, particularly through club markets. Home agents have also assisted farm families in marketing wholesale poultry, eggs, and cream, A number of 4-H

members have sold poultry, flowers, canned goods and cut flowers. The method for getting statistical reports on marketing this year has changed and as a result of this change, we do not have separate figures for poultry, eggs, turkeys, canned goods, 4-H marketing, etc. Reports indicate that home agents assisted 17,462 farm people, and that food products at a value of \$694,699.69 were sold during 1943.

Home demonstration club markets: There were 32 markets in operation in the state the past year. All but 6 markets showed an increase in sales over the previous year. The markets as a whole showed a 26.4 percent increase in business during the year. Total sales were \$283,250.40.

Poultry and turkey marketing: A number of counties marketed poultry during the early spring months by working out truck schedules throughout the county. In some localities these schedules operated every two weeks. In other sections monthly, and in some only one shipment was made during the year. This same system was used in the fall for handling turkeys and chickens. We know there was an increase in production. Also there was good demand for poultry and turkeys, so it seems reasonable there was an increase in volume of sales over last year.

Egg marketing: For a number of years the Extension Service has had an egg marketing program. In 1942 the Food Distribution Administration cooperated in the marketing of eggs and a very satisfactory program was carried out, so much so that more pullets were kept on South Carolina farms. Food Distribution Administration plans were so indefinite early in 1943 that the Extension Division of Markets worked out a program with a wholesale egg firm in North Carolina which ran a truck route through the state each week and purchased eggs. County and home agents set up assembling points for eggs. The eggs were packed in cartons and delivered to the receiving points. This program in an emergency served its purpose and proved satisfactory. A greater number of counties participated and returns on egg marketing were greater than in 1942.

Cream sales: Fifteen counties reported sales of surplus cream to creameries located in the state. One creamery picks up cream and eggs in a number of counties. Seven hundred twenty-eight families sold cream at a value of \$20,815.58.

In an effort to help farm people understand the needs for rationing and as an aid to prevent black marketing and inflation, a program was given in 202 home demonstration clubs in the state reaching 1,910 farm women. As ceiling prices were placed on farm products according to grade or quality offered, new interest was aroused in grading demonstrations in home demonstration program.

During 1943 grading of sweet potatoes was given in 108 home demonstration clubs, grading of eggs in 98 clubs, grading of butter in 69 clubs, 6 clubs had grading of dressed chickens and 18 clubs gave grading of canned goods.

Poultry

One or more phases of poultry work with adults was carried on by home demonstration agents with 35,475 women in 762 communities in 46 counties of the state in 1943. Home demonstration agents devoted an average of 19 days each, or 6.4 percent of their working time during the year to poultry. One thousand, four hundred fifty-six voluntary local leaders assisted with poultry

work. Twelve training meetings for local leaders were held in 12 counties with 143 leaders present. Three hundred fifty-four method demonstrations were given adults at home demonstration clubs and community meetings with 4,186 attending. In 24 counties leaders gave 108 of these demonstrations to 2,099 persons. Among the demonstrations given were included brooding, vaccinating, feeding, houses and equipment, culling, candling and grading eggs, preserving eggs, and dressing poultry for market. There were about 1,353,985 hens in the flocks of the 35,475 women doing poultry work, an average of 41 hens per flock. The approximate income from poultry and eggs sold from these flocks in 1943 was \$1,478,517.40, or an average of \$41.67 per flock.

Four-H poultry work was carried on by home demonstration agents in 46 counties in 1943. Five thousand, three hundred thirty-five members were enrolled and 4,563 completed their year's work. Of the number enrolled 5,286 in 46 counties were girls and 49 in 7 counties were boys. Four thousand, five hundred twenty-six girls in 46 counties and 37 boys in 7 counties completed their work. One hundred seventy-three thousand, three hundred sixty-eight chickens, or an average of 32 chickens per member were raised. Gross income from sale of poultry and eggs by 4-H members was approximately \$71,531.21. Three hundred sixteen poultry demonstrations were given 5,950 4-H members in 46 counties. Sixty-four of these demonstrations were given 1,520 members by 4-H club leaders. Thirty-three members in 9 counties raised 655 turkeys and sold them for \$2,674.00. By far the largest piece of 4-H poultry work was done this year with 4-H members in the Food for Victory Program.

A 4-H Flock Management Contest, poultry judging contest, and 4-H poultry show were held during the year. Eleven counties had loan funds amounting to \$1,588.75 available for poultry members to use in starting poultry work. Of this amount \$831.57 was used by 25 members in 6 counties.

Women's Land Army Extension Farm Labor Program

Land army work, as one phase of the Extension Farm Labor program, was started in South Carolina in May, 1943, when the reporting specialist from the home demonstration department was put on as a part time supervisor for this phase of work. This was an entirely new program and was started under opposition and with no precedent as to procedure.

County Agriculture Committee meetings were attended in 25 counties in May. In 22 of these counties one or more women were on this committee. Almost all of the 46 home demonstration and 8 assistant home demonstration agents in the state have cooperated actively in the W. L. A. program. These agents have devoted approximately 270 days, or about 5 days each, to this and other phases of the Farm Labor program. Of the 180 days worked from May 1, through December 31, 1943, by the reporting specialist, 83 days have been devoted to the Labor program and W. L. A. work.

From June 1 through December 31, 1943, one thousand and forty-six women in 26 counties have enrolled in the W. L. A. Most of these are farm women, but thirty are non-farm women. According to reports of farm agents, and county labor assistants up to November 15, 1943, there were approximately 16,785 placements of women farm workers with about 10,864 different women involved.

Twenty-three counties participated in the observance with 123 4-H clubs and 147 home demonstration clubs conducting song periods at club meetings at which patriotic and religious songs were featured.

One Sunday rural ministers in 24 churches gave sermons on music with special music arranged for the church services.

A county music chairman from the Council of Farm Women gave a talk on music. Twelve Sunday afternoon "sings" were held. It was reported that 4-H members received pins of recognition for learning the words and music of five national songs. Newspaper articles were published in advance of the week.

This very fine observance shows that those who are not on the fighting front are carrying on. There is no doubt that we have become a nation of workers and no one has complaints, but it is also obvious from the report that people can't do gardening all the time, so music is offering a more than usually pleasant diversion.

The use of music has brought together entire communities and has fostered a spirit of cooperation and good will.

State-wide, County, and Community Activities

Councils of farm women: Practically all of the state and county-wide activities are either sponsored or initiated by the councils of farm women and the extension service depends more and more upon this fine group of earnest women for leadership.

Ever since they were first organized it has been the duty of home demonstration workers to promote council work on both a county and state-wide basis. The State Council is the largest organization of rural women and one of the strongest women's organizations in the state. It is an active member of the Women's Council for the Common Good and thus participates in all the activities in which the organized womanhood of the state is particularly interested. Membership in the councils is drawn from the organized home demonstration clubs of the many communities of the various counties and from other farm women not members of clubs. Membership of councils totals 12,299 farm women. Due to war conditions at Winthrop College the state council meeting was held at Camp Long in July. By having the meeting there, the council officers felt that plenty of time could be given to matters, although county representation had to be limited to six delegates on account of limited accommodations. Transportation difficulties, however, made it advisable to limit each county to one car capacity - total attendance was around 200.

Every county in the state was represented, and the two full days' program was not only a boost to council work, but the women felt that this time served as a recreational period away from home after so many months of strenuous war activities.

The theme of the meeting was "Farm Women's Contributions to the War." One of the high lights of the program was honoring the five Master Farm Homemakers for 1943 which was sponsored by the state council. Master Homemaker pins were given these women by the Dixie Stores Corporation. Other important work of the council during 1943 consisted of: Library work, helping with school lunches,

The majority of these were negro women who were placed for short-time seasonal work, largely for picking cotton. No specific training program has been necessary. There has been a noticeable change in the attitude of many members of the Extension Service and farm labor assistants towards the idea of using women as farm workers. The farmer, too, is beginning to be less adamant as laborers become harder to find.

Music Project

This year most of all the years it seems to me has been the year to use music in the lives of our people for with the stress and strain of war people have needed music to tell of the finer things of life and to give them the inspiration and desire to more fully "Hold fast to that which is good."

The following report of work accomplished by the rural clubs in music will give a clearer vision of the purpose and duty of the music project in South Carolina.

In 1943 the following list of familiar songs were used and not only the music was learned but the words:

Onward, Christian Soldiers
Star Spangled Banner
Latin American Song - Cielinto Lindo
Christ the Lord is Risen Today
America, The Beautiful
Latin American Song - Buy My Tortillas
America
Carolina, or Faith of Our Fathers
We are Farm Women
God Bless America
Come Ye Thankful People
Oh! Come All Ye Faithful

Four hundred eighty-four home demonstration clubs used project songs at their regular monthly meetings. An estimated number of women participating is 9,943.

Four-H clubs report that 9,493 girls at 414 clubs sang project songs at each monthly meeting.

The number of club choruses has to decrease on account of the shortage of gas and rubber but 9 women's choruses and 5 4-H choruses meet as often as possible.

The most striking feature of the year's music work was the observance of National Music Week.

In response to the call the Extension clubs of South Carolina have observed National Music Week as a part of their regular music project in a most satisfying manner. It has really been music "of the people, by the people, and for the people."

college 4-H scholarships, serving as leaders for 4-H and home demonstration clubs and in the Better Farm Living programs, helping in war drives of every kind, investing thousands of dollars in war bonds and stamps, Red Cross work, producing and conserving food, in keeping the homes together under the impact of war, and in helping stimulate community life through active churches, schools, and wholesome recreation.

All counties adjacent to military camps in the state, through the work of the home agents and councils of farm women, furnished day rooms for the soldiers. Many fine expressions of appreciation have been made by the camp officers and soldiers, themselves.

Four-H councils for girls and boys: Twenty-five counties have joint councils for 4-H boys and girls with a membership of 6,072. In spite of transportation problems twenty counties attempted holding meetings, and had the surprising attendance of 3,707 members.

All councils are working on their objectives and are trying to even strengthen their work during this war period.

The state 4-H council met at Camp Long for one week during which time intensive leadership training was given this group of young people. In addition demonstrations based on war needs were given.

The major activity of the 4-H boys and girls during 1943 was Food for Victory program. (See 4-H club leader's report.) The most vigorous activity was the War Bond drive culminating in the two million dollar goal for a 4-H Liberty Ship. This great feat was more than achieved. Total bond sales amounted to \$3,413,881.25. The South Carolina 4-H Liberty ship named A. Frank Lever was launched of December 7. What a privilege for the 4-H members and Extension workers to honor one of the best loved citizens who had done so much for the Extension Service throughout the nation.

Community Activities: The major pieces of work given state-wide emphasis and the constantly changing and increasing war programs require the greater part of the home agent's time and energy. Consequently she has to depend to an even larger extent on local leadership for all community activities. Rural women have been found both willing and capable in assuming this responsibility and they have rendered splendid community service.

They realize that under the stress and strain of present conditions music, recreation, get-together meetings and neighborliness are more important than ever in order to keep up the health and morale of their families.

They know, too, that all such get-togethers provide a fine opportunity for developing farm people in leadership, cooperation, and community improvement in physical, spiritual and moral aspects. Some form of recreation and music periods were included in all home demonstration and 4-H club meetings held during the year.

Songs were used at home demonstration club meetings.....	484
Women participating at these meetings.....	9,943
Songs used at 4-H meetings.....	414

4-H girls participating at these meetings.....	9,493
Community "sings" held.....	12
Home Demonstration choruses.....	9
4-H choruses.....	5

Fairs: Fewer county fairs were held during 1943 than in former years. War activities consuming so much of the time of rural people plus transportation problems were the main factors involved.

South Carolina was one of the two states on the Atlantic coastal border having a state fair in 1943. After the fair committee made the decision to again have a fair, the Extension Service gave its cooperation. The main theme of the home demonstration booth was food conservation. The Women's Land Army was also featured. The different methods of conserving foods were vividly displayed - canning, drying, brining, dehydration, and sulphuring. Home demonstration club women demonstrated each day during the week on canning and dehydration. This added interest to the exhibit.

Forty-four of the 46 counties of the state sent canning exhibits to be displayed. Thirty-three of these were entered in the state canning contest sponsored by the Kerr Canning Glass Company.

The men Extension Workers featured in their booth home grown feed, which was the most educational and attractive exhibit at the fair.

GIRLS 4-H CLUB WORK

Monthly home demonstration staff conferences, and State Club Leaders' conferences, material and supervision of specialists and backing of administrative supervisory staff all contributed to 4-H progress and its evaluation in relation to other Extension Service. Also war demand gives urge for better production program.

Some of the factors not contributing to plans and supervision are too much routine with contests and records, especially from September to February for one Girls' Leader to do much creative thinking and planning.

Although war brings reason for added effort to meet emergency goals, it is sometimes used as reason "not to do" when, with investigation, it is found to be more possibly a means "to do". Transportation, for instance, has been shown in many counties as a difficulty overcome in order to carry out programs for morale-building and meeting war needs.

For example:

13 counties held 36 county-wide programs with 1,402 attending.
38 counties held camps with about 2,000 Club boys and girls attending.

These were given recreation, inspiration, health and nutrition, instruction and training in conservation, farm labor, and care and repair of machinery, equipment and clothing.

The time element has much to do with the effectiveness of Club work. As difficulties this refers to: Time for children to meet in a crowded school schedule, or in home community between bus arrival and dark; time for the Agent to prepare for and conduct good meetings through planning with a local leader and program committee; time for home work, time for staff members to really observe and help with county situations. In most instances, not enough time is devoted to preparation, presentation, demonstration, and follow-up.

The drop in girls' enrollment and below-the-goal completion was another handicap factor in reaching maximum results possible.

Therefore - -

Major Activities

1. Trying to get more time for meetings at school, and more club meetings held locally out-of-school by leaders. Results noticeable in Lancaster and Chester where direct supervision was given.
2. Creating sentiment for club work was doubtlessly best done through the 4-H Liberty Ship Campaign. 4-H members and friends realized more fully the "bigness" of club work through this \$4,000,000 war bond measurement.

Sixteen state newspaper and magazine articles, radio training and recognition of members, and letters or the State 4-H Exchange to non-Extension people were other methods during 1943.

3. Definite effort was made for increased enrollment without results, but completion is 69.6% nearer the state 75% goal than in any previous year.
4. Emphasis was placed upon individual training conferences between agent and local leader due to drop in group meetings for lack of gasoline to make trips.
5. Production and conservation continued as the most important activity with 111,314 quarts increase resulting in conservation done by girls or with their help at home.

The following table gives summary of production and conservation and other project work by 4-H girls contributing materially to the home unit requirements, morale, and other Victory effort.

Table - Girls' 4-H Club Work - 1943

Totals: 530 Clubs	Enrolled- 9,539	No. Counties 46	Completion 69.6%	No. Counties 46
Garden.....	6,254	37	2,464	24
Better Farm Living...	2,758	14	1,874	14
Clothing (Chiefly repair)....	3,238	25	2,532	14
Home Furnishing.....	1,376	21	666	14
Home Management.....	2,196	21	1,156	13
Home Beautification..	1,934	28	Not a regular project	
Canned Fruits and Vegetables.....	6,515	45	300,691	45
Canning Meats.....	1,378	26	8,559	26
Drying.....	681	18	18,694 lbs.	18
Poultry.....	5,286	46	173,386 birds	46
Number Local 4-H Leaders (women)...	369	30	held 155 meetings	27

NEGRO FARM DEMONSTRATION WORK

Food Production

Better Farm Living Work stressing the importance of home production of food and feed was conducted in 19 counties by Negro agricultural agents. Eleven thousand one hundred and twenty-four farm visits were made by Negro agricultural agents, 16,995 office calls were made by Negro farmers at their offices. Adult meetings numbered 1,126 with an attendance of 49,827; L-H club meetings numbered 307, with an attendance of 11,523.

Livestock work was conducted in 204 communities by Negro agricultural agents; demonstrations conducted by farmers in livestock production are listed as follows: beef cattle, 67; hog production, 297; poultry, 122. Twenty-two farmers were assisted in obtaining purebred beef bulls; 99 were assisted in obtaining purebred boars; 618 farmers improved methods of feeding hogs, and 60 improved methods of feeding hogs.

Field Crops

Four hundred and four Negro farmers were assisted in obtaining improved seed corn, 179 improved seed wheat, 197 legume seed, 59 pasture grass seed, 339 improved cotton seed, 658 improved sweet potato plants and 158 fruit trees. Lime placed on 1531 farms, 1976 farmers assisted with fertilizer problems, 1908 assisted in controlling plant disease, and 2,113 assisted in controlling injurious insects.

Dairying

Twenty Negro farmers assisted in obtaining purebred dairy bulls, 175 assisted in obtaining family cows and 353 improved methods of feeding family cows.

Marketing

Negro agricultural agents assisted farmers in marketing grain, hay, livestock, dairy products, poultry and eggs, fruits and vegetables, timber products, etc. to the value of \$206,574.

Poultry

Negro agents assisted 3,470 Negro farmers in obtaining approved baby chicks, 2,461 in controlling poultry parasites, and 3,474 in improving methods of poultry feeding.

Negro Boys L-H Club Work

Negro agents enrolled 4,169 Negro farm boys in L-H club work, 3,209 of which completed their demonstrations in crops and livestock production, growing products to the value of \$129,697.

NEGRO HOME DEMONSTRATION WORK

During 1943 sixteen Negro home demonstration agents made 11,033 home visits; held 2,866 adult meetings with an attendance of 51,805; and 1,893 L-H club meetings with an attendance of 37,681 girls.

Food Production and Conservation

Home gardening assistance was given to 6,534 Negro families. Families assisted with other phases of food production are listed as follows: fruits, 1,800; meats, 3,292; milk, 3,318; poultry and eggs, 5,605. A total of 9,072 different farm families were assisted producing to provide better diets.

In food conservation the following listed activities were stressed and the indicated number of families given assistance home butchering and meat curing, 4,012; butter and cheese making, 2,095; canning, 10,204; freezing, 98; drying, 4,698; storing, 7,081. In all 12,770 Negro farm families were assisted with food preservation problems.

Forty-one nutrition schools were held with an attendance of 3,978 farm women. Assistance with poultry problems given to 2,335 Negro farm women and 2,756 Negro L-H club girls. Forty-eight milk cooling boxes built.

Home Improvement

Forty-eight farm families were assisted in constructing farm dwellings, and 680 families helped to remodel dwellings. Needed storage space was provided in 1,622 homes; 2,315 families improved their kitchens, and 2,120 families improved other rooms in their houses.

Clothing

Four-thousand eight hundred and seventy-eight families were assisted in making clothing. Assistance in care and renovation of clothing given to 5,553 farm families, and 4,030 L-H club girls made 8,382 garments and remodeled 5,425.

Health and Sanitation

Assistance was given 269 Negro schools in serving hot lunches to 60,703 school children. Twelve hundred and twenty-five homes were screened. Sanitary toilets were built on 362 farms. Home nursing courses were taken by 1,312 Negro farm women. In all 13,611 persons were assisted with health problems.